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Railway Age

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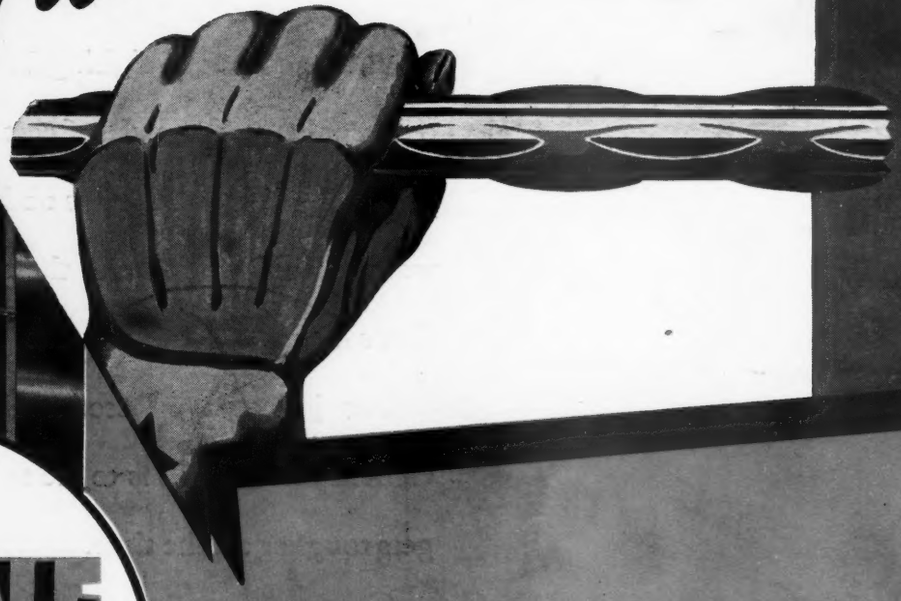

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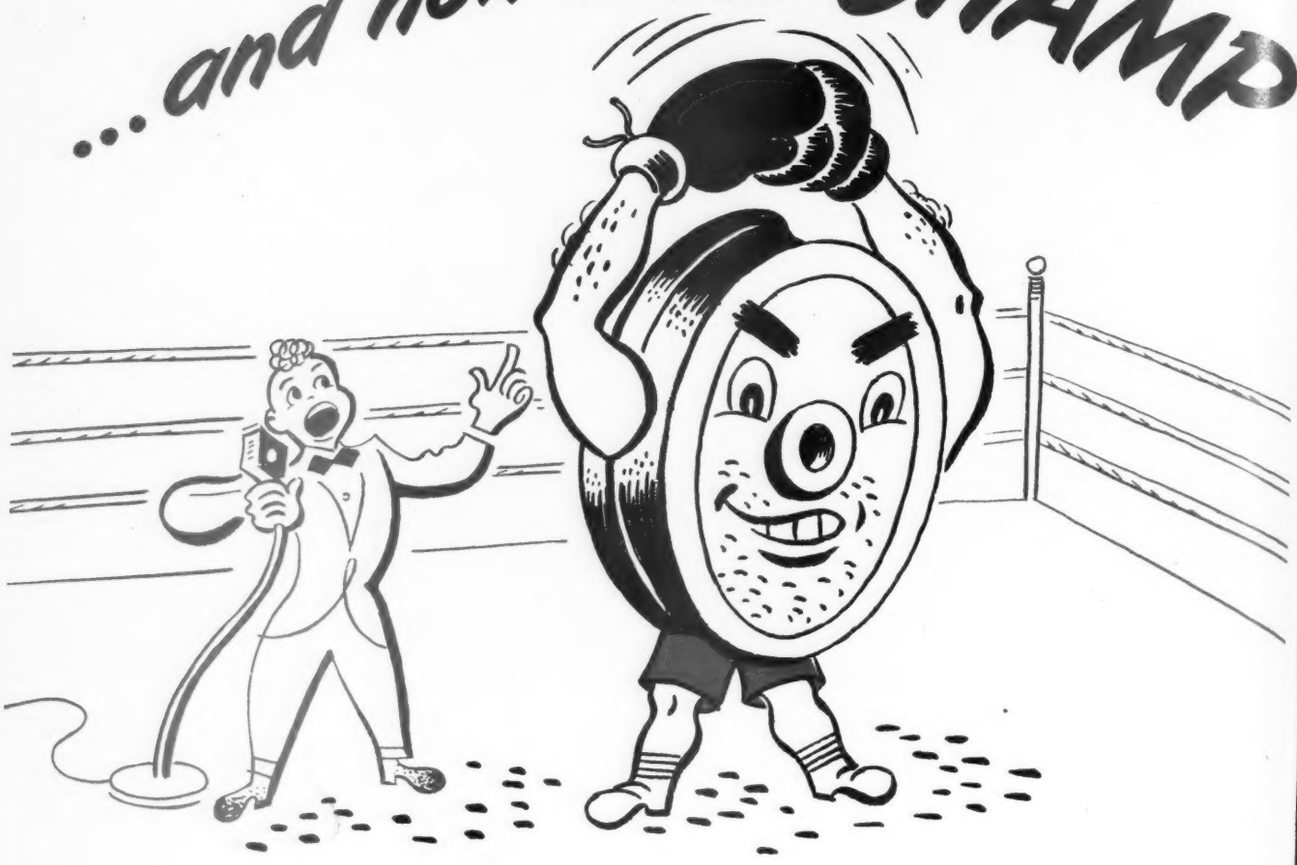

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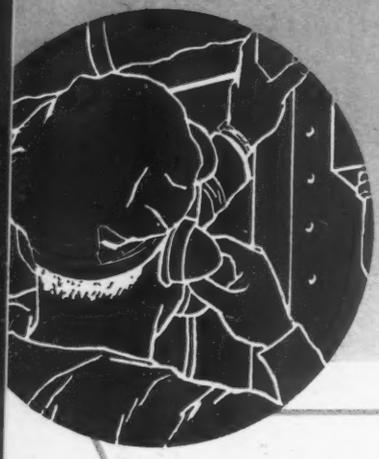

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RAILWAY AGE

Organization Needs Periodic Scrutiny

The railroads present quite a contrast to most other large-scale industry in their apparent small concern with the general problem of the proper form of organization for effective managerial control. The subject is one which commands attention at every meeting of organizations of industrialists, and a constant stream of articles and books is issued on the subject, some of them quite profound. On the railroads, however, there has been little agitation of the matter, except in its piecemeal aspect, for an entire generation—not, indeed, since a practical compromise was worked out between the conflicting contentions of the "departmental" and "divisional" theories. Managerial organization was not numbered among the 15 important subjects for the study of which subcommittees were named by the A. A. R.'s Railroad Committee for the Study of Transportation.

It would be hard to find a plausible explanation for the variation in interest in this subject as between the railroads and most other industry except that the pressure of competition has forced the development in other industry, whereas transportation has only comparatively recently become intensely competitive and the railroads have not yet fully accommodated themselves to the change. Even without overall critical study of their managerial organization, of course, the railroads have adapted themselves to changing conditions. New specialized functions—"public relations" and "research," for example—have been assumed by management, and officers have been placed in charge of such work being often placed, however, in a relationship to the rest of the organization where they would least disturb the *status quo,* rather than where they should be logically located for maximum effectiveness.

Sales Function Undervalued

Changing times do not give rise, merely, to new duties which need managerial attention; they also reduce the importance, sometimes to the vanishing point, of functions which were once of primary concern. In the absence of a periodic critical examination of an organization, with the view of pruning out the branches which have ceased to bear fruit, the newer functions and those who perform them may be denied the nutrition and the space necessary for their proper development.

Some railroads have separated the rate functions in the traffic department from sales, but few if any of them have put the head of the traffic department in the commanding position which the sales manager has in most other competitive industry; and seldom recently has the chief salesman of a railroad's service succeeded to the position of chief executive. The post of manager of personnel on a railroad is frequently to a large degree a staff job—charged with keeping records and, perhaps, with negotiating agreements with the unions, but with little or no authority down on the hiring line, where the fateful question of the composition and character of the company's personnel is primarily determined.

The passenger traffic department is given the duty of filling a railroad's trains with customers, but it frequently has little or nothing to say about the quality of service provided for these customers, once they get on the trains. This situation is, of course, a holdover from the days when a passenger could only accept the service a railroad chose to offer or stay at home.

Inefficient Centralization

The accounting department's work on many railroads has been highly centralized with a laudable view to the mechanization of its work, but a superintendent recently advised us that this development on his railroad had resulted in such delay in the production of figures that, by the time he received them, they were of little or no value for purposes of control. This condition has, however, since been corrected by permitting superintendents to employ divisional statisticians. Some railroad departments are eager for more cost information than they have—but there appears to be no general agreement on the extent to which sound practice requires that the accounting department supply such information, or, on the contrary, permits it to be prepared in the departments which use the figures.

There are some who believe that managerial organization is a problem of "human engineering," and that a group of "experts" can come into any company and establish an ironclad organization for it, merely on a basis of rigid logic. Such a supposition makes the mistake of not differentiating between the forces developed

by human beings and those which are the product of inanimate machines. The best form of managerial organization is one which, while pursuing a logical arrangement as an ideal, makes adjustments to accommodate the pattern to the people, rather than vice versa.

The very fact, however, that an organization does make some allowances for the peculiarities of the individuals who compose it also points to the need for relatively frequent overall critical examination of the whole set-up. Otherwise a pattern wisely distorted to permit free rein to a couple of men of large capacities may continue the distortion in favor of their successors, who may be only of normal stature, or possibly even less. Management is too vital a function to allow its force to be dissipated by a patchwork organization. No private business today enjoys a position of such security that it can hope to prosper or even survive if it allows illogical frictions in its organzation to prevent effective use of the brain-power at its disposal.

Roller Bearings Breach the Last Barrier

The announcement in the February 1 *Railway Age*, page 291, of the order for 1,000 hopper cars to be equipped with roller bearings, placed by the Chesapeake & Ohio, is especially significant in several respects. It represents the first lot of freight cars of substantial size to be equipped with roller bearings. It also represents one of the largest single lots of cars on which any substantial departure has been made from the standard freight journal box with wedge, brass and oil-soaked waste packing.

Roller bearings first began to make their way on railway passenger cars twenty years ago. During 1927, 1928 and 1929 several types of such bearings were applied, in each case to equipment for complete passenger trains, and their use spread rapidly thereafter. The installation of roller bearings on the engine trucks of high-speed locomotives also began at about this time. Several limited applications of roller bearings to locomotive driving journals were made shortly thereafter, but the real development of fully equipped locomotive journals received its impetus following the delivery of the Timken roller-bearing locomotive during the first half of 1930.

While roller bearings were applied to freight cars in several instances during the early 1930's, the numbers were never large. The present order for 1,000 cars is large enough to represent a real breach in the barrier which has withstood the pressure of twenty years.

There has always been difficulty in securing support for any item of additional cost on general service freight cars not essential to the production of a standard unit. Obviously, this has stood in the way of extensive applications of roller bearings, as well as of other proposed changes. In the present instance, these hopper cars are being purchased for operation on home rails, thus giving the owning road the opportunity to acquire complete knowledge of the comparative value of the roller bearings and the standard waste-packed journal boxes and to profit by all of the advantages which the comparison may develop in favor of the roller bearing. In view of that consideration, this event is no more than a beginning. The rate at which further progress is made may well depend upon the comparison of the amount of service and maintenance attention required by these cars and those with standard waste-packed journal boxes, as well as their relation to future hot-box epidemics with which most railroads suffer at persistently recurring intervals.

Getting Full Value from "Detour" Track Maintenance

How to maintain tracks and bridges while minimizing interference with or by passing trains is a perennial concern of maintenance officers. The problem is especially acute where the maintenance gang involved is large and is equipped with a lot of expensive machinery, for then the economic loss suffered through idleness when clearing for trains is painfully obvious. From the viewpoint of the maintenance forces, the ideal solution is to close down traffic during the entire working period, but this expedient usually conflicts with the obligation of the transportation department to keep trains running on time.

On most roads, therefore, there is a long history of controversy between the two departments over how much use of the tracks the maintenance forces shall have. Recent years, however, have seen the development of a system for doing maintenance work on multiple-track lines which appears to have all the ingredients of a solution to the problem—meeting the needs of both the maintenance and operating departments. Known on some roads as the "detour" system, this scheme entails setting off the tracks into sections 10 or 12 miles long, constructing temporary crossovers at the ends of the sections if necessary, and routing all traffic around sucessive sections during working hours while maintenance operations are performed.

Thus, maintenance gangs are able to move progressively over a given territory, passing from one "detour" section to another and carrying on their work practically without interruption from passing trains. The advantage to the maintenance department is obvious. To the operating department the advantage in the system is proportional to the amount of maintenance work concentrated in the "detour" sections, thereby eliminating slow orders and other obstacles to the smooth flow of traffic elsewhere on the road. The presence of a length of "dead" track in a multiple-track territory obviously creates something of a traffic bottleneck, but if transportation officers can be shown that they are accepting one bottleneck in exchange for perhaps a dozen or more lesser hindrances to traffic, they will usually be quick to see the benefit to them.

On one road that has used the "detour" system with outstanding success, and with the active cooperation of its operating officers, advantage is taken of the availability of the sections of "dead" track to perform a wide variety of maintenance tasks, including rail and tie renewals, ballasting and surfacing, rail-end welding, the

changing out of angle bars, ditching and bank widening, and certain types of bridge repair work. It takes intensive work such as this—leaving the section thus repaired free thereafter for a considerable period from routine maintenance attention—to make the "detour" system as attractive, or almost, to the operating department as it is to the maintenance forces.

Management's Attitude Makes a Big Difference

Progressive top railway engineering and maintenance officers from all parts of the country will assemble in Chicago during the week of March 17 to attend the annual meeting of the American Railway Engineering Association and the large exhibit of materials, equipment and appliances scheduled by the National Railway Appliances Association. These men know the benefits to be gained through these two important events, and will miss them only for causes beyond their control. At the same time, the wisest among them, and those who will reap the greatest benefits, are those who, while making their own plans, will see to it that as many of their associates as possible will also be on hand.

One chief maintenance officer who is not overlooking this angle said recently: "Of course I'll be there, but I consider it of even greater importance that some of our division and subdivision officers be present; they're the men who must carry out the practices recommended and keep our equipment working at peak efficiency." And this executive expressed other sound ideas about this matter. His associates are not being required to beg for the opportunity to attend the convention and exhibit; they are being encouraged to avail themselves of it, conditions permitting, and will be allowed their legitimate expenses. Only one thing is expected of them—that they carry back with them the maximum benefits to be gained.

Why not more of this attitude on the part of higher engineering and maintenance officers—men who best know the value of the exhibit, for example, and the opportunity which it affords not alone to see and handle hundreds of labor- and time-saving devices, but to discuss production, operation and maintenance of these devices with their designers and builders, and with those who have used them on other roads? Frequently the answer to this question is to be found in a disinterested or negative attitude on the part of railway executive officers, who sometimes, by such an attitude, have destroyed an entire organization's incentive to stretch itself "the extra mile" in the interest of the company.

The men in the ranks of railroad personnel closely reflect the attitude of their higher officers, for good or for ill. As to the coming convention and exhibit, railway managements can call the tune if they desire. What they may do individually with respect to their own forces will have little effect upon either the convention or the exhibit as such—since the success of both is assured—but what they do is certain to make a big difference in what their respective roads will get out of these all-important events.

Thomas A. Edison's Contributions to Railroading

One hundred years ago, on February 11, 1847, Thomas Alva Edison, "Inventor," was born at Milan, Ohio. The designation, "Inventor," is his own and appears after his signature as one of those who signed the original call for the organization meeting of the American Institute of Electrical Engineers on May 13, 1884.

Much of Edison's early experience was gained in railroad service. Many of his inventions, the character of which was influenced by that early experience, contributed to the growth and development of the railroads.

When 12 years old he worked as a newsboy and "candy butcher" on the Grand Trunk between Detroit, Mich., and Port Huron. When he was 15, he saved a child from death under the wheels of a freight car, and as a reward was taught telegraphy by J. U. MacKenzie, station agent at Mt. Clemens, Mich., whose infant son Edison rescued.

Between 1864 and 1868 he served as telegraph operator in various cities of the central western states. This experience later led into another four-year period, 1872-1876, during which he conducted manufacturing of telegraph instruments for the Western Union Telegraph Company and the Automatic Telegraph Company. While thus engaged, he invented an automatic telegraph and duplex, quadruplex and multiplex telegraph systems which permitted the sending and receiving of a number of messages over a single pair of wires.

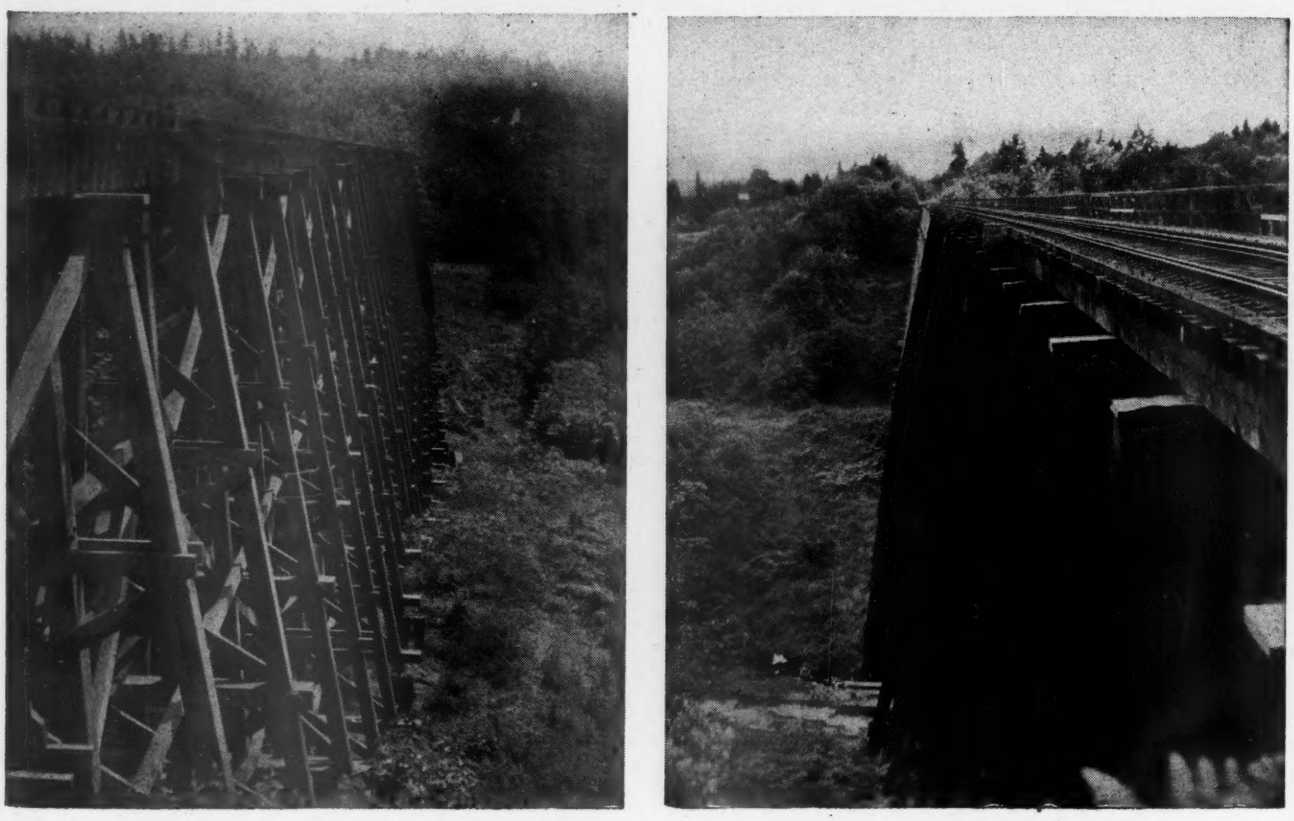
Edison is best known for having invented the first practical incandescent lamp in 1879. It, of course, had a profound influence on all industry and on the private lives of people throughout the world.

A direct railroad development was the operation of the first passenger electric railway in this country at Menlo Park, N. J. Edison's early experiments with this railway hastened the development of commercially successful electric traction systems and he is credited with having been the first to introduce the third-rail system of distributing electrical energy.

Other Edison inventions which have had particularly far-reaching effects are the phonograph (in 1877) and his work on electrical powerhouse machinery and the three-wire system for distributing electric power. Subsequent inventions which had specific railroad applications were the Edison-Lalande primary battery in 1893, which was used for operating the first electric semaphore signal installed on a railroad near Phillipsburg, N. J., and in 1900 the Edison nickel-iron-alkaline battery.

The former is still a major item in railway signaling, and the latter has found wide application for train car lighting and air conditioning, signaling, industrial truck operation and many other purposes.

The inventions mentioned are primarily those which have had a direct effect on railroad development. They represent only a fraction of Edison's contributions to science and human welfare. It is the man himself who has given the world a rich heritage, for he stands as a shining example to those who would exercise their own initiative.



Left—The north half of the trestle is of frame-bent construction, of timber treated with Wolman salts. Right—The south half of the structure is of creosoted pile-bent construction

High Trestle Tests Construction Types

Northern Pacific structure, half creosoted pile bents and half Wolmanized frame bents, will afford interesting comparison of designs and preservative treatments

IF there are special advantages as between frame-bent and pile-bent construction for high timber trestles, and as between creosoted and clean preservative treatment of timber, under the specific conditions imposed, the Northern Pacific should eventually find the answers in its long, high, single-track Wilburton trestle, near Seattle, Wash. This is so because, when this structure was rebuilt in 1943-1944, about half was constructed with frame bents of preframed timber treated with Wolman salts, and the other half was built with creosoted pile bents. Most of the bents are unusually high, those in the north half, where the frame bents were used, having an average height of 68 ft. and a maximum height of 98 ft. to top of tie, and those in the south half, where long piles were driven, having an average height of 70 ft. and a maximum of 89 ft. The bridge has a total length of 984 ft., of which 479 ft., or 32 spans, is of the frame construction, while the remaining 505 ft., or 34 bents, is of the pile construction.

The new structure replaces a six-post frame-bent trestle and is located over what is called Mercer slough on a detour belt line extending around the east side of Seattle. Known as the Lake Washington Belt Line, it extends from a junction with the main line south of Seattle to another north of the city, completely bypassing the urban district.

The old structure was originally a frame trestle on pile footings, built in 1904. The frame bents, of untreated material, were replaced completely in 1913, 1924, 1933, and 1943-44—giving an average service life of 10 years. The footing piles, on the other hand, were redriven in 1903 and 1924, and were patched since 1931, to be redriven again in the most recent renewal during 1943-44, giving a weighted average service life of 12 years.

The latest renewal of the trestle was first considered in 1941, when it showed considerable evidence of decay, divided about equally between the piles and framing timbers. Serious consideration had been given beforehand to filling the opening, but the idea was abandoned owing to the instability of the marshy ground, the unstable material extending downward as much as 20 ft. It was then proposed to redrive the foundation piles and to renew the frame bents, using creosoted material throughout, doing half the work in 1942 and the remainder in 1943. However, because available creosoting plants were overloaded with work there, it was impossible to secure the necessary material.

It was not until the early part of 1943, therefore, that there was any assurance of obtaining delivery of creo-

soted material, and then of enough only for the short foundation piles for half of the trestle. However, when it was learned that timber treated with Wolman salts could be obtained, it was decided to go ahead with the work on half of the structure, using short creosoted foundation piles and Wolman-treated timber for the posts, sills, struts and braces, and then following up early the next year with the renewal of the remaining half of the bridge with creosoted material, if available. The entire existing deck of the structure, consisting of ties 8 in. by 8 in. by 10 ft., and stringers 9 in. by 18 in. by 30 ft., three per chord, was in such sound condition that it did not require replacement.

Design Features

The loading of the new structure is limited to Cooper's E-60 by the three-stringer chord under each rail, but the frame bents and the pile-bent structure were built for Cooper's E-65 loading. Also, because the trestle was subject to strong winds, which tend to have a loosening effect, it was planned to use six posts again for the higher bents and to place them with a wide spread at the ground for additional stability.

The frame bents in the rebuilt structure are made up of multiple sections, each about 24 ft. high. Each of these sections is surmounted by a 12-in. by 12-in. intermediate sill, except the top of the upper 24-ft. section, where 12-in. by 16-in. by 14-ft. caps are used and covered with a galvanized iron cap sheet. Each 24-ft. section is cross-braced at its mid-section by means of two horizontal 3-in. by 10-in. planks, and the two panels thus formed are braced diagonally with planks of the same size. The pattern of diagonal bracing includes two planks each for the upper two panels, and four planks each for the next five lower panels, except that in the bottom panel in each case six planks are used. The frame bents each rest on a sill supported by eight piles, one under each of the intermediate posts and two, on 3-ft. centers, under each outer post. All bottom sills are of 12-in. by 14-in. fir, and those over 36 ft. in length are spliced at their centers.

The posts of each bent are 12-in. by 12-in. fir timbers, spaced on 2-ft. 6-in. centers under the cap. Batter of the two outside posts is about 2½ in. in 12 in., that of the two center posts is ½ in. in 12 in., and that of the two intermediate posts is 1½ in. in 12 in.

The bents are tied together longitudinally with 6-in. by 10-in. horizontal and diagonal bracing timbers, which connect the second and fourth posts of each bent with the corresponding posts in the adjacent bents. The horizontal members of the longitudinal bracing are located at the bottom and middle of each 24-ft. bent section, while the diagonal members are connected at these same panel points. Both diagonals in each panel run in the same direction, the direction, however, alternating with each panel and with each story.

All of the frame bents were pre-assembled in a temporary framing yard about 500 ft. north of the bridge

The foundation piles for the frame bents were all driven from the top of the trestle by a steam hammer operating in swinging leads. The leads, 30 ft. long, were suspended by a cable from the boom of a locomotive crane and were held in the proper driving position with wire rope guys. The new lines of piles were driven about five feet from the old bents.

While the foundation piles were being driven and the sills attached to them with drift bolts, material was being assembled for the bents at a temporary framing yard established about 500 ft. north of the bridge. There the material was received already cut to size, prebored and treated, and was assembled into the 24-ft. bent sections. Each section was completed before it left this yard, even to the setting of the dowel pin in the base of each post and the boring of matching holes in the tops of the intermediate sills of adjoining sections—a procedure that called for exacting measurements to insure proper fit at the time of erection. Bolts were used for all primary connections and boat spikes for all secondary connections. All field-bored holes were treated with a wood preservative.

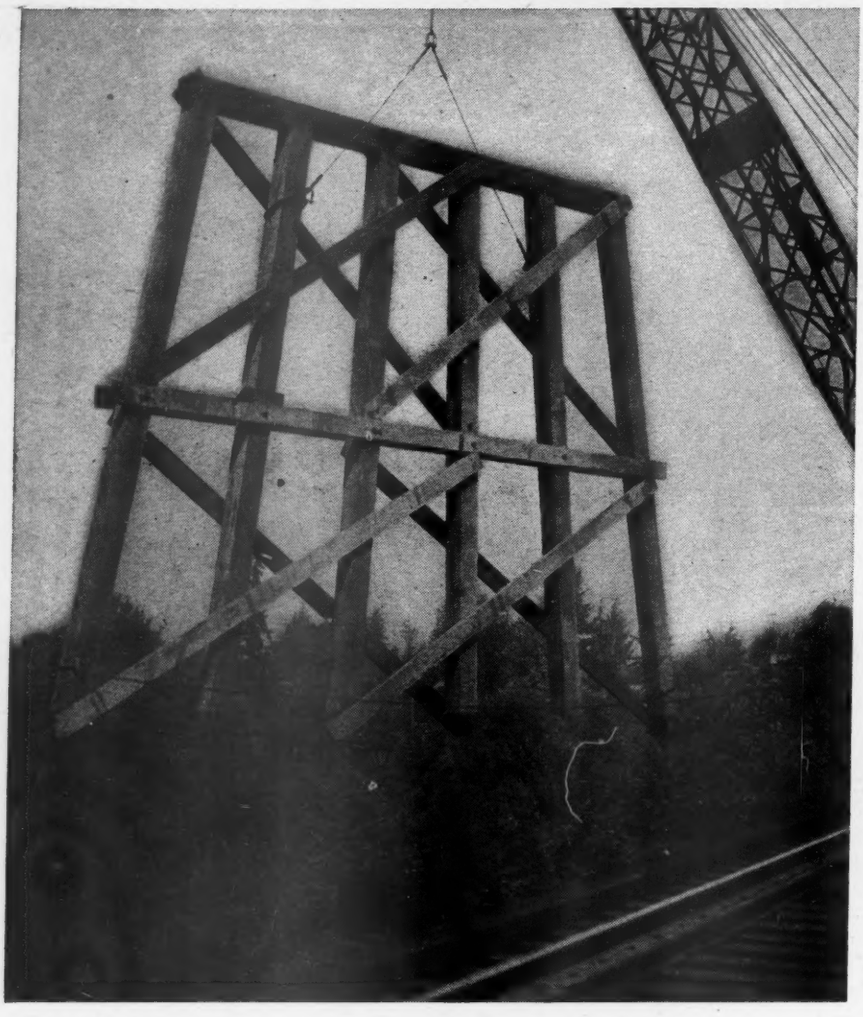
When all the sections for an entire bent had been assembled, they were picked up by a crane, one at a time, in proper sequence, and carried to their respective locations. At each location where a new bent was being installed, the longitudinal braces of the old bent were first cut away to permit the new sections to be set in place, after which they were temporarily braced. When the new bent had been completely erected, the stringers and ties were shifted and the old bent was cut away from all its connections to the structure and pulled out by the crane. The new bent was then permanently braced longitudinally, and the erection work proceeded in a similar manner at the next bent.

There was some concern over the amount of shrinkage that would take place in the timber of the new structure, especially in the four sills of the higher bents. It was estimated that the shrinkage in the sills would be from three to five per cent, which would amount to as much as 1½ in. for the four sills. Accordingly, it was decided to build the new bents ¾ in. high, recognizing that this could eventually leave the deck ¾ in. low, a variation that could be overcome satisfactorily by shimming.

With the arrangement followed on this project, power tools could be used to advantage in the framing yard; the new bents could be erected faster than if built in place, one member at a time; and the old bents could be removed with dispatch—all of which aided considerably in speeding up the work. Also, a derrick car assisted in lowering the botom sills and the longitudinal braces.

The Pile-Bent Half

When it was found early in 1944 that enough creosote-treated material could be secured, plans were prepared for building the remainder of the trestle with creosoted fir piles and lumber. The bents designed for this portion of the structure each consist of six piles, some as long as 110 ft.; cross braces on each side at 12-ft. intervals; two 3-in. by 10-in. diagonal braces per panel (except the bottom panels, which have two addi-



Each section of the multiple-section frame bents was installed as an assembled unit—all of the work being done under traffic

tional diagonals) and caps of two 8-in. by 16-in. by 14-ft. timbers covered by a galvanized iron cap sheet, the two timbers being preferred because of severe checking which frequently occurs in a single member of this size. In the three upper panels, the cross braces are of 3-in. by 10-in. planks; in the next lower panel they are 4-in. by 10-in. planks; and in the lower panels they are 6-in. by 10-in. timbers. All longitudinal braces between bents are 6-in. by 10-in. timbers and are applied in the same pattern as used on the frame bents erected in the north half of the trestle.

The piles are centered under the caps at distances of 1 ft., 3 ft., and 5 ft. 6 in. each way from the center line of the trestle. The two inner piles are on a batter of approximately ¾ in. in 12 in., and the four outer piles are on a batter of 3 in. in 12 in. Most of the piles have a penetration of 8 to 10 ft., although some have as much as 20 ft. where the ground is particularly soft.

To permit the driving of the two inner piles, the stringer chords were spread apart on the entire half of the trestle, after which they were closed again to their normal spacing and the outer piles were driven and then pulled in at their tops. All driving was done with a McKiernan-Terry 9-B-3 steam hammer.

As on the frame-bent portion, all lumber was cut to size and treated before being shipped to the site, and all field-bored holes and cuts were given a brush treatment of creosote before erection. Here also, all major connections were bolted and secondary connections were boat spiked.

Where this portion of the bridge passes over a country road, two seven-pile inclined bents were driven with a spacing of about 38 ft. at the base to permit an unobstructed roadway of the desired width. These bents lean toward each other so that their tops are 15 ft. apart, and about the same distance from adjacent bents. The seven piles of each bent are on two-foot centers under the caps and spread out uniformly downward, the two outer piles being on a batter of 2 in. in 12 in. The bottom longitudinal braces of these bents are so located as to provide a vertical clearance of 14 ft. for highway traffic. Teco connectors were used between the piles and braces of these two bents and those immediately adjacent.

Quantities Involved

A considerable amount of material was necessary in rebuilding the trestle. In the frame-bent half 330,000 ft.b.m. of timber treated with Wolman salts and 4,077 lin. ft. of creosoted fir piling were used. In the pile-bent half 188,000 ft.b.m. of creosoted timber and 17,800 lin. ft. of piling were used, while in the entire structure, 24,000 lb. of bridge hardware were necessary and a total of 54,000 ft.b.m. of old stringers were shifted longitudinally. Usable timber salvaged from the old structure amounted to 385,000 ft.b.m., which was later treated for use elsewhere as mudsills, bulkhead timbers and turntable-pit walls.

Preframing work on the north half of the trestle was done at the yards of the Wauna Lumber Company, Wauna, Ore. The timber in this half was given the standard Wolman treatment, and was erected by the Morrison & Knudson Co., Seattle, Wash. The short foundation piles used in this half, and all of the piles and timber used in the south half, were given the Boulton (boiling under vacuum) process of treatment with a 45-per cent creosote, 55-per cent petroleum oil mixture, and a retention of 12 lb. per cu. ft. Preframing and treating were done at the plant of the West Coast Preserving Company, Seattle. The piling was driven by the Puget Sound Bridge & Dredging Co., Seattle.

The trestle was rebuilt under the general direction of Bernard Blum, chief engineer of the Northern Pacific, and R. R. Brockway, at the time bridge engineer, and now retired. G. R. Hopkins, now assistant bridge engineer at Seattle, was in charge of erection.

The relatively short period of time the new trestle has been in service makes a comparison of the two methods of treatment impossible, although it is beyond question that all of the treated material in the new structure will far outlast the untreated material used previously. Much interest should develop as to the relative desirability of the two types of construction with respect to stiffness, rigidity and permanency. With the shrinkage of timber, which should be relatively small due to the seasoning in connection with the treatment, the bolts can be tightened and firm joints maintained.

In the pile structure, the piles have the advantage of continuity, but the attachment of the various braces to the piles so as to develop the strength of the brace members presents considerable difficulty.

The ABC of Depreciation Accounting

What every railroad man ought to know about the necessity and difficulty of putting aside a reserve from the revenues a machine earns, to replace it when it wears out

By J. F. BLAIR

Assistant General Auditor, Chicago, Burlington & Quincy

The matter of making charges to depreciation has practical aspects of the greatest importance to almost every railroad department—as for instance when the question arises, as it often does, whether it would be better business to replace an old machine or facility which is still serviceable with a new one which will do the job better or more economically.

How many railroad men know whether, and if so how, proper depreciation charges provide a railroad with funds for making improvements, or whether such charges help or injure a road's cash position?

This whole subject is as complex as it is important—but Mr. Blair in this article, we believe, has gone further than anyone heretofore has succeeded in doing, in reducing the matter to simple terms. If a practical problem in this field occurs to you for which this article does not afford a ready answer, please write us about it (in confidence if you so desire). These queries will be referred to Mr. Blair and he will devote a later article to answering all the questions so raised, if any.—EDITOR.

DEPRECIATION and depreciation accounting are two distinct and separate things. The trick is to harmonize the two. All things at one time are new; later they are mature or well broken in for efficient work; and finally they wear out and die or are scrapped. The seeds of decay are inherent in the organic or inorganic machine. In the case of material things, the steady progress toward the scrap heap is symbolized by the word "depreciation." It is an inexorable law of nature that nothing shall last forever.

Depreciation accounting is merely an attempt made by man to time the assessment of the cost of this eventual loss of invested capital with the particular annual periods in which it occurs. Depreciation is actual—the accounting for it an estimate. The effort to harmonize the two is made because of the definite necessity for maintaining intact the investment so that the business does not die when its tools wear out.

These fundamental theories of investment are unwritten orders issued by owners to their managers:

(a) That payment be made to the investor as interest for use of his money and as a reward for the risk taken, and

(b) That the money invested be protected by management so that it will not be lost as the property depreciates.

A corollary of these theories is the accounting principle which requires that a distinction be made between capital and operating expenses—this for the reason that, unless the distinction is made, investment money may be paid out in dividends and the financial position of the company jeopardized. The investment in a company is utilized in two ways—(1) part as working capital and (2) the remainder for the purchase of fixed assets to be used in the production of goods or services.

Importance of Working Capital

The net working capital is represented on the company's balance sheet by the difference between the current assets and the current liabilities. This part of total investment is that needed to pay wages, buy material, and perform the other current functions of business prior to the receipt of money from the sale of the company's product to the ultimate consumer. A company may have the finest plant, equipped with the best available machinery, and still not be able to function adequately if the amount of working capital is limited. The ratio of current assets to current liabilities is an important test of the financial condition of a business.

That part of the total investment represented by the fixed assets, buildings, productive machines, etc., is, because of the relative lack of stability in material things, an amount which must be gradually charged against the operating expenses of the company and recovered in the sales price of the manufactured article or service if the total investment is to be maintained intact.

Since a healthy business tends to grow and since new techniques of production require additional investment in machines, management has the duty, not only of maintaining the original investment, but also of increasing the money devoted to the purposes of the business.

The earned surplus account as shown on a company balance sheet reveals how much increase in investment the managers of a property have been able to effect over and above the funds supplied directly by investors. This increase is reflected in both the working capital and the fixed assets, although it should be kept in mind that the disposal of fixed assets may also be reflected in this balance sheet account. Disregarding this latter factor, the only way an increase can be obtained in the earned surplus account is through the establishment of a selling price which covers all costs of doing business, including a fair return on the investment.

The economist's definition of normal price is a price which will return to all sellers the cost of producing the service or manufacturing the goods, the cost of transportation, the cost of sales and administration, the cost of replacing worn-out machines, plus a fair return to compensate for risk. Obviously, all of the expenses included in the preceding list, except that of a fair return, must be earned by *any* operating company if it is to remain in business. If the company is to grow and the economy of the country is to progress, the return on the investment must also be obtained, for it is out of this return that additional tools of business—known as the fixed assets—are provided and the plant kept up to date and modern.

An Operating Cost

Depreciation is definitely an operating cost and not merely a theoretical cost—and it must be recovered in the sales price just as other costs are. A business can vanish just as surely by failing to collect enough from its customers to cover depreciation as it would if it failed to allow for labor and material costs in its prices to purchasers.

The failure to recover the full cost of production in the selling price obviously results in a loss on the operation and is reflected in a reduction of the company's working capital. A sufficient reduction in the working capital of a corporation will bring about bankruptcy regardless of the amount invested in

the plant or its physical condition. The recent situation of the railroads, with a low selling price and a high wage scale, has caused a reduction in the working or liquid capital of representative companies in the industry.

If the sales price is great enough to recapture the loss through depreciation, but no accounting is done for depreciation, then the difference between income and *recorded* operating expenses is considered net income which may be paid in dividends. When this is done, the investor is actually receiving back a part of his original investment in his dividend check, although he considers the dividend as a return *on* investment, not a return *of* investment.

It is the intention of people who wish to live under a competitive economy that a fair return be included in the charge for goods and services made by those companies which supply the demand for such goods or services. This fair return or income of a company over and above the cost of production necessarily varies according to the efficiency of the company's organization. The normal price previously referred to is necessarily the cost of the least efficient company which can stay in business to meet the demand made for the service or goods. The pricing of a regulated industry, such as the railroads, varies somewhat from this pattern.

Profits Provide a Cushion

With the railroads, the price is fixed by the regulating agency and, although in the past it was apparently the intention that the railroad industry be permitted to earn a fair return (i. e., that the price fixed by regulation should be the "normal" price), such a fair return has been conceded only in theory—not in practice—by the regulators of the railroads. The distribution made of the return that is obtained is of importance, however, because, aside from increasing bonded indebtedness or the sale of stock, it is out of the net income that managers improve their plant and purchase equipment to reduce the cost or improve the service to the purchasers of transportation.

Out of the net income come the new trains, heavier rails and other things which improve the service of railroads to the nation. That is to say, capital goods are purchased out of net income, unless new money is secured through issue of stocks and bonds. It is income that is "plowed back," as the saying goes, into the business to contribute to the growth of the business. Part of the net income may be reflected in the increase in working capital. The increase in working capital made during periods of good business makes it possible for a company to maintain operation and give employment in periods of relatively poor business.

Although there are many today who disclose their lack of understanding by decrying profit in business, it should be apparent that the profit made by an organization and devoted to the purchase of capital goods, and to an increase of working capital for the purpose of weathering the storm of the poor business years in the business cycle, is not different from the savings made by an individual to protect against a rainy day. Such profits are decidedly not contrary to the general welfare but are essential to it.

The distribution of a portion of the net income to the owners of the business is a dividend—that is, it is an amount divided among the owners as interest on their investment and should include a payment sufficient to persuade the investors to assume the risk involved in removing their money from the safety of deposit boxes, banks, or government bonds, and to devote it to an enterprise which offers to pay for the use of the money only on those occasions when the tools the money buys actually earn something above operating costs. Directors of a corporation are fully aware of the importance of insisting that no payment of dividends be made to the owners until losses of capital through operations have been recovered and replaced. This responsibility includes the replacement of losses in both working capital and in fixed assets. It is, therefore, highly important that the management of a company know there is included in the current operating expenses an amount sufficient to represent the depreciation of the fixed property utilized by the company in the financial period under examination.

As was pointed out in the beginning, this duty of management resolves itself into the practical problem of correlating the charges for depreciation made to operating expenses with the actual loss in value suffered by the physical property during the financial period (usually a year).

The point has already been made, but it will do no harm to repeat it, that, if a corporation fails to recover in its sales price the loss incurred through depreciation of fixed assets, there is a resultant loss of investment. It follows that the selling price in such a case is less than true cost, and such an error, if not soon corrected, will wipe out the investment. If investors are treated in this manner to any considerable degree, they will cease providing funds for the industry which treats them this way—and, without funds with which to provide tools, the industry will wither away and the public will lose the service it provides.

Accurate accounting for depreciation is thus seen to be necessary, not alone to do justice to the investor but also to safeguard the interest of those who have a stake in the continued operation of the property, viz., management, employees, and the shipping and traveling public.

When depreciation is properly charged to operating expenses and recovered through the sale price, and the funds thus obtained are then expended for new and improved plant and machines, the economic cycle is complete. In an exchange economy such as ours, money or its equivalent must be continually circulating. Money that is hoarded, that is, withheld from the economic stream, causes distortions in the economy. For example, if a man earns $1,500 and spends or invests that amount, he returns the fruit of all of his labor to the productive stream for use by others to sustain them in the production of more goods. If, however, he spends only $1,200 and hoards (i. e., hides) $300, then four-fifths of the product of his labor is made available to other people. As the depreciation charge is recovered through the medium of the sales price, it is returned to the productive stream through its expenditure for replacement assets. The same purpose would be served, of course, if the funds were invested in the securities of some other business—but there is no particular virtue in such outside investment, especially if the investment is needed in the railroad business, as it usually is.

Obsolescence a Factor

It might seem that these fundamental facts with respect to the protection of investment or the need for recovering depreciation losses would have been recognized with the inception of the corporate form of business organization. This, however, was not so. Actually, the awakening really occurred with the enactment of the income tax law. The serious consideration enforced by income taxation on the matter of losses of investment—which have heretofore in this article been grouped under the term depreciation—revealed that there were other losses than those occasioned through wear and tear of physical property that needed to be recovered through the sales price.

Evidence of this consideration is afforded in U. S. Treasury Department, Bureau of Internal Revenue, Bulletin "F," wherein it is said that: "The consumption of trade or business capital represented by depreciation is an operating cost, the deduction of which in computing net income is specifically provided for in the Internal Revenue Code . . . as follows: Depreciation—a reasonable allowance for the exhaustion, wear and tear of property used in the trade or

business, including a reasonable allowance for obsolescence."

This is to say that the factor of obsolescence is also recognized as a cause of loss of investment. In a Supreme Court decision in 1932, which is also quoted in Bulletin "F," this factor is elaborated upon as follows: "Obsolescence may arise from changes in the art, shifting of business centers, loss of trade, inadequacy, supersession, prohibitory laws and other things which, apart from physical deterioration, operate to cause plant elements or the plant as a whole to suffer diminution in value."

Causes of Loss

A further refinement of the element of obsolescence is made by the Treasury Department in that it provides that ordinary or normal losses which occur because of the effect of the causes mentioned in the Supreme Court decision should be included in the depreciation rate, but that obsolescence or inadequacy due to revolutionary or radical changes, unforeseen and unpredictable by their nature when the property was acquired, cannot be covered by the ordinary depreciation charge, but must be handled in a special manner.

The National Association of Railway & Utility Commissioners has arrived at the following definition: "Depreciation is the expiration or consumption in whole or in part of the service life, capacity or utilization of the property, resulting from the action of one or more forces operating to bring about the retirement of such property from service."

In this definition we find a distinction between the expiration of the service life and the termination of capacity—the first to be measured in the terms of physical life of property and the latter on the basis of use.

In the light of these definitions, we can attribute these losses to more specific causes, and it is necessary to do this if we are to ascertain as nearly as possible what the charge to operating expenses for such losses should be.

Using the word depreciation as the abstract symbol for all causes of loss of investment through its employment by an operating company, we find that these causes can be subdivided under the headings: (1) Physical; (2) Functional; (3) So-called "Acts of God."

The factors involved in physical depreciation are wear and tear, which involve friction and vibration, etc.—that is, purely mechanical losses and metal fatigue, oxidation, etc. which are caused by natural forces.

These latter items are often referred to as decrepitude, inasmuch as they involve physical decay. Although little can be done to defer losses due to these latter items, adequate maintenance and care will tend to reduce the wear-and-tear losses.

Under the heading of functional causes, there are to be found losses caused by inadequacy, which are losses of investment brought about by increased demand which makes it necessary to replace an otherwise efficient asset. For example, a station building may be physically fit but inadequate to the demands of the public for service such as a building provides.

Another set of causes of loss of investment may be gathered under the heading of supersession, which general term defines a loss caused by the appearance of more efficient assets than those presently employed, making it necessary to replace present equipment if competition offered by the more efficient machinery is to be met. Another category that must be considered when analyzing functional losses which have no direct connection with wear and tear or age, is obsolescence. The losses classified under this heading are those which occur because of changes in the art, shifting of business centers, etc., as indicated in the Supreme Court decision quoted above.

While the decision referred to includes under obsolescence such things as inadequacy and supersession, as a general thing, however, accountants and engineers segregate these causes into separate classes—that is, a machine is *inadequate* when it will not meet the demand; it is *superseded* when a superior machine is available; and it is *obsolete* when its product is out of fashion, or for some other reason is no longer demanded by the buying public.

Under the heading "Act of God" must be segregated losses of investment which are attributable to accidents, including fires, structural defects, and those caused by disease—that is crystallization, electrolysis, and failure of supply in the case of use of natural gas or local water supplies.

Although maintenance cannot stop the march of material things to the scrap heap, care and repair will retard this movement. The results of obsolescence and supersession can often be arrested if adequate changes are made in the machine or other item of equipment. In the final analysis, however, investment in fixed asset will eventually be lost unless adequate provision is made for recovering, through the sale price, the cost of the assets used up in the operating process. This loss is just as certain and can no more be stopped than can the loss called "depletion" which occurs when coal or gold is removed from a mine. Because of the definite character of depreciation, it is necessary to ascertain as accurately as possible what charge to include for it in the sales price and to make against operating expenses in order to maintain the investment intact.

The first step, in the ascertainment of the amount to be charged to operating expenses as representative of the loss incurred in connection with the service of any building or machine, involves an estimate of the expected life of the asset. Insofar as the past reflects the future, we may search the records and ascertain the actual life of similar assets which already have been used up in the operation of the business. This period is recognized as the "service life" of the unit of property being studied—it being the period during which the unit can be expected to perform its task efficiently. With the estimated service life established as one factor, it is necessary to ascertain the "service value" of the unit in order to arrive at the proper annual charge to operating expenses.

Unavoidable Uncertainty

"Service value" is the name given the amount which represents the difference between the cost of the asset and the value of the salvage that will remain when the unit is retired from service. The problem of ascertaining how much salvage there will be and what its value in dollars and cents will be, when recovered at some distant date, is relatively simple to solve when compared with the fixing of the service life—because changes in materials used and construction methods of the present compared with the past must be taken into consideration. It is at this point that man pits himself against nature and attempts to say how much will be lost over what period of time. The service life determined on the basis of prior experience must necessarily be modified in view of the known improvements in manufacturing processes and in materials which enter into the new unit of property.

With the cost of the original asset a known factor—and the estimated service life ascertained from studies of the past and tempered with the knowledge of the current company policy as to repairs and maintenance and the forecast of the possibilities of obsolescence, supersession and inadequacy—it would seem a simple matter to ascertain the estimated charge to make to operating expenses to cover the cost of depreciation. It is, however, also necessary to distribute the amount expected to be recovered from the sale of salvage at the end of the service life of the unit over the years of use so that each of those years will get a proportionate credit for this value.

Another element also is the cost to be incurred in the removal of the property and the recovery of the salvage at the end of the service life. This amount, too, must be estimated and spread over the life period of the property. Gener-

ally, if the estimated cost of removal and recovery is less than the value of the salvage, the net amount is considered as the "Net Salvage Value" and that amount is deducted from the cost of the unit of property plus additions and betterments in order to arrive at the service value of the unit. If, however, the cost of removal and recovery is estimated to be in excess of the value of the salvage, generally speaking, neither item is considered in the fixing of the annual depreciation charge and the actual net cost of recovery less value of salvage is reflected in the operating expenses of the period in which that action takes place.

Although it might seem from the above that the charge to operating expenses for the loss incurred by depreciation would be arrived at by dividing the estimated service life into the cost of the unit of property, less the net salvage value, the fact is that depreciation charges are actually stated as depreciation rates—that is, as annual percentages according to the estimated life of the unit of property. These rates are nothing more or less than the percentage relationship of one year to the total number of years the property is expected to serve the company—that is, a depreciation rate of 4 per cent indicates that the property to which it is applicable is expected to serve 25 years. This rate may be adjusted to reflect net salvage value if desirable.

Depreciation Methods

Inasmuch as different types of property will serve for different periods of time, separate rates must be established for each type of property or even each unit of property. This makes it necessary to decide whether a "unit," "type," or "group" plan will be utilized. The I. C. C. depreciation order now effective on the railroads calls for the use of the "group" plan—which means that a depreciation rate has been established for each group of similar units of property. For simplicity's sake, the several groups of property or components that are included in any one of the primary accounts under the general balance sheet accounts, which reflect the investment in Road & Equipment, have been calculated so as to provide a composite rate applicable to the total investment recorded in a particular primary account.

The depreciation charge based on dividing service value by service life and arriving at the charge to operating expenses—or by applying a percentage representing the ratio of one year to total life, to the service value of the property—results in charging each year during the service life of a unit of property with exactly the same depreciation charge. This method of charging depreciation is known as the "straight line method."

There are many methods employed for charging depreciation to operating expenses. In each one the effort is to estimate accurately the loss incurred in a given period. Two other methods besides the "straight line method" may be mentioned, viz.:

1. *Unit of production method.*—Under this plan the total number of units a machine can be expected to produce during its service life is estimated and the operating expenses of a given period are charged with a pro rata proportion of this total amount based on the production of the machine in the period. With similar intent, the hours of expected service may be utilized as the factor for the purpose of charging a period with its proportion of the estimated total hours of service.

2. *Diminishing value method.*—There are those who believe that the charging of a straight-line proportion of service value to operating expenses over the service life of the unit of property has the effect of distributing unequally the cost of the unit as an operating tool to the years in which it is used.

This belief is based on the fact that in the early years in the life of the unit repair charges are relatively small but increase as the service life draws to a close. In the "diminishing value method," an attempt is made to recognize this condition and, based on estimated costs of repairs and maintenance, the depreciation write-off is so calculated as to make greater charges for depreciation in the years when maintenance and repair costs are low and lesser charges against those years in which the latter charges are high. This is not done in recognition of a relationship between depreciation and repairs or maintenance costs but merely to average out these two elements of expense because of their affect on sales price. There is much that might be said for this method—particularly for small companies. In the case of larger companies, this meticulousness is not necessary. This is particularly true in a going corporation where there is a constant replacement of fixed property.

Although there is much to be said for the theories involved in other methods of charging depreciation, it has been concluded quite generally that the straight line method, involving equal annual charges over the estimated life of the property, is equitable; and it cannot be questioned that this method is the simplest to calculate and to understand. This method is conservative, too, from the standpoint of maintaining investment, because it builds up depreciation reserves at least as fast as under any other plan.

It must be obvious from the foregoing that the ascertainment of service value, service life, and other pertinent information is a task which involves cooperation between the engineering and accounting departments of the individual companies, and, naturally, the most satisfactory results are obtained where there is friendly cooperation between those departments.

After the fixing of the composite depreciation rate to charge, the accounting is a simple matter—it involves only application of a rate to the cost of property in an investment group, charging the result to operating expense and crediting the same amount to the depreciation reserve account. It should be noted that this is one of the few entries made which is *not a record of known facts.* Depreciation as such is a fact, but because of the impossibility of accurately measuring the depreciation loss incurred in any period, the accounting for the loss is an estimate. Accuracy is, of course, desirable but in this instance it is impossible to obtain. The problem is to fix upon a procedure for estimating the charges that will show a high coefficient of correlation between actuality and estimate.

Saliers, in his book "Principles of Depreciation," writes that "depreciation charges are adjustments made at the end of a period to remedy discrepancies between book accounts and the things whose value they indicate."

The Depreciation Reserve

When units of property have served their purpose and are retired from service, the ledger value or cost, plus additions and betterments, is charged to the depreciation reserve account, and the salvage recovered is credited to that account. Thus, if the unit has lived its estimated life, the charge will be equaled by depreciation credits made during the life of the property plus the salvage value. It should be clear from this that *the reserve accounts do not provide the funds to finance the purchase of replacement units but that replacements have to be made out of working capital.*

For example, each month during the life of a locomotive that was purchased at a cost of $100,000, and which was estimated to have a 25-year life and $5,000 salvage value at the end of that time, an entry would be made:

Debit Acct. 331, Equipment-Depreciation $316.66
Credit Acct. 702½-D, Accrued Depreciation-Equipment $316.66

Such accounting would charge current operating expenses with a pro rata proportion of loss of value in the locomotive. This entry has the effect of increasing operating expenses and thus reducing net income and also of establishing a reserve account (702½-D) to which will

be charged the ledger value of the locomotive, that is $100,000, when it is finally retired from service. In this instance the entry will be:

Debit Acct. 702½-D, Accrued Depreciation Equipment ...$100,000
Credit Acct. 701, Road and Equipment Property $100,000

This entry would retire the locomotive from the books. Inasmuch as over a period of 25 years monthly entries of $316.66 or $316.67 have been made, only $95,000 will have been credited to the reserve. When the locomotive is torn down and actual salvage recovered the value of this salvage will be recorded in the accounts:

Debit Acct. 716, Material and Supplies $5,000
Credit Acct. 702½-D, Accrued Depreciation-Equipment $5,000

This will record the value of material recovered when the locomotive is torn down.

Because the depreciation charge has been made to operating expenses for the purpose of collecting the amount of the depreciation, and because it represents an amount that will not actually be spent until the asset is worn out, the effect is to increase the current working capital of the company. This results because of the effect of the estimated charge to operating expenses on the net income for the period. For example, if revenues are $1,000 and expenses, not including depreciation, are $600, the net income credited to surplus is $400. However, if depreciation cost is $100 and so charged, expenses now are $700 and net income only $300. This has the effect of restricting $100 from use in paying dividends and leaves that amount which represents original investment with the managers for use in furthering the purpose of the company.

Cash Not Impounded

Inasmuch as most companies are constantly replacing worn out property, the net effect of depreciation charges on working capital is difficult to ascertain without much careful examination of the records. This constant flow from working capital to fixed assets, in the case of larger companies, is the fact that makes it unnecessary to establish depreciation funds (ear-marked cash) to insure that the loss recovered through the depreciation charge is available for the purchase of assets when necessary. This practice may be desirable and necessary in the case of small companies, but in the instance of large going concerns, it has the effect of impeding progress by unnecessarily tying up the working capital of the company. The accounting for depreciation as it accrues currently is only one of the many attempts made by accountants to insure that the profit and loss statement and the balance sheet reflect true facts for management, investors and the public who have occasion to use such reports.

One of the underlying principles of good accounting involves the distinction between capital and revenue expense. Actually, it involves the distinction between capital or investment and revenue money. Investment money should be used only for the acquisition of assets or for working capital and revenue money should be used for operating purposes; for dividends; purchase of new assets; or for increasing working capital. It is only by making this distinction and adhering to it that the investment in a corporation can be retained intact.

Why New Capital Is Needed

It will be recalled that the service value of an existing unit is the amount expected to be recovered through the charge for depreciation to operating expenses, and through the inclusion of this cost in the selling price of the goods or services produced by a company. No provision is made for an increase in the price of units purchased in replacement. For example, if the unit being depreciated has a service value (cost less net salvage) of $500, that is the amount which will be recovered, but if the replacement unit—the one purchased at the time the original unit is retired from service—costs $700, additional investment money must be secured or working capital will be reduced by the difference of $200. This is one reason why, in a period of rising prices, a company has to have the confidence of investors in order to stay in business, even if it is not expanding its physical plant. Additional capital is needed in such circumstances in order to keep the property from shrinking.

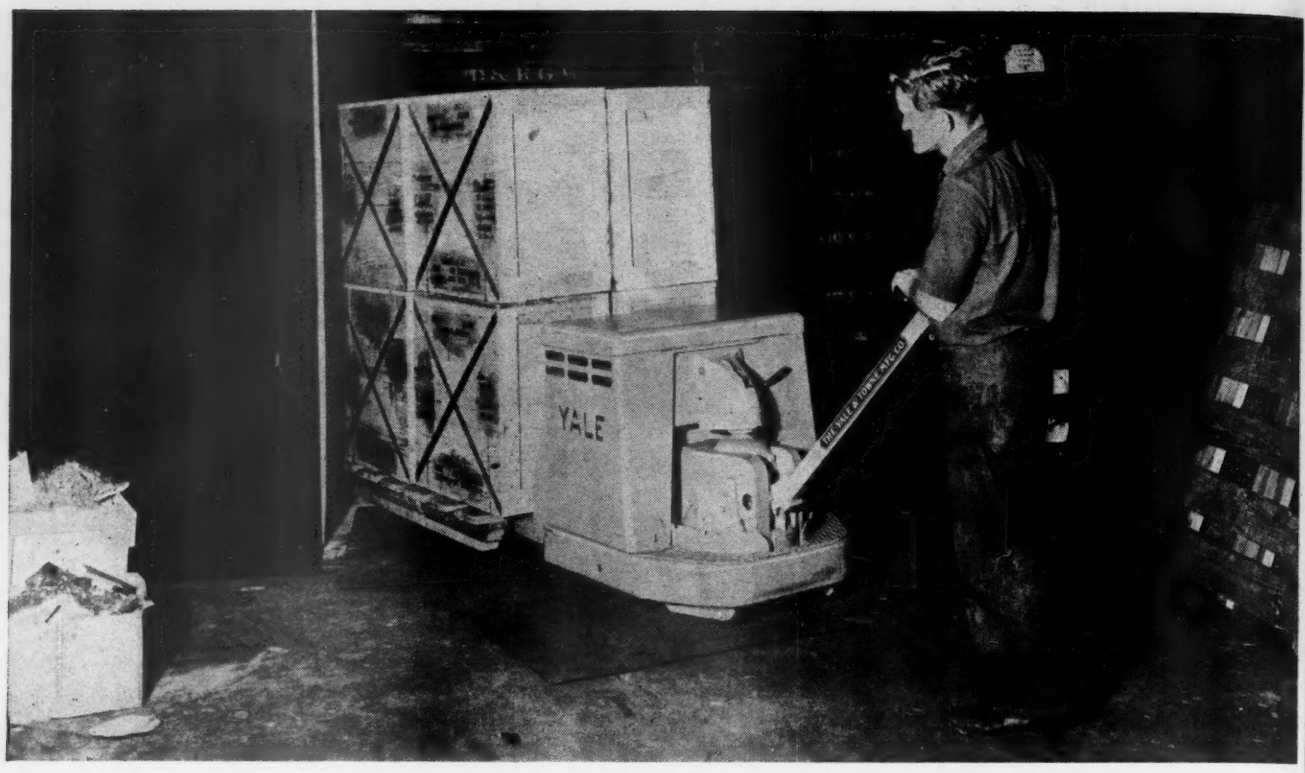
The decision to replace property, which is one of the major problems of business, involves consideration of depreciation. The question hinges largely on the known productive capacity of the unit of property and the cost involved in the form of depreciation. The offset to this known condition is the productive capacity of the new unit and the attendant depreciation charge. If the product of the new unit will, with all expenses considered, cost less to produce than the cost with the present unit and its attendant expenses, generally speaking the replacement is justified. If the cost per unit is approximately the same, but the advantage lies in an increased number of units, the demand for the product must be given consideration. However, even after these and such other pertinent matters as need consideration at the time study of replacement is being made have been carefully surveyed, those suggesting replacement must bear in mind the need for investment capital if the new unit will cost more than the one to be retired. Too, consideration must be given to the loss in investment if a unit of property is retired before it has lived its estimated service life, and thus the amount of the investment has not been recovered through revenue.

In this analysis of depreciation and its effect on business problems, nothing has been said about amortization. This provision during the recent war, which allowed war industries to liquidate special war facilities over a relatively short period of time, was seemingly a gesture made in an attempt to justify high income tax rates on the earnings of companies which were devoting their full investment and energy to the war effort.

Land is included in the fixed assets of most companies and particularly railroads. Land does not depreciate and, therefore, no write-off of the amount invested is warranted. Because of the manner in which rail and ties are replaced (quite steadily, comparatively speaking, from one year to the next), they, too, are considered as non-depreciable—which is, in this instance, merely another way of saying that the method of charging off investment to operating expenses when retirement occurred (which was the method formerly followed by the railroads with all classes of property) is satisfactory. In fact, there are those who feel that the retirement accounting effective for roadway property prior to January 1, 1943, was more equitable than depreciation accounting, from management's standpoint. That, however, is an argument that was settled when the I. C. C. order was issued and there seems to be little to be gained by reopening the discussion.

Regardless of when the loss of investment is recorded, the fact of depreciation is as true as is the necessity for recovering this day-by-day loss of invested money. The grocer who does not sell his goods for enough to replace his stock will soon be out of business; and this will happen as surely, but more slowly, to the railroad which does not set aside funds from current earnings to replace equipment when it is worn out or becomes obsolete.

MATERIAL-HANDLING FILM.—Latest types of equipment and the most advanced methods of handling materials are stressed in a new 26-minute sound picture, entitled "Payloads Pay Off," sponsored by the Automatic Transportation Company, in cooperation with the General Electric Company. Both 16-mm. and 35-mm. prints are available from the Automatic Transportation Company, 149 West 87th st., Chicago, and the Institute of Visual Training, 40 East 49th st., New York.



Handling palletized material with an electric lift truck

Planning Avoids Unnecessary Handling

Through detailed studies and expanded use of mechanized equipment, stores have eliminated many expensive material movements. Future railway orders specifying palletized shipment envisioned*

By G. A. GOERNER
General Storekeeper,
Chicago, Burlington & Quincy

Stores officer foresees widespread use of palletized loading of railway material and commercial freight. Manufacturers' cooperation to be a vital factor, but standardization of pallets and interchange bureaus may hasten development.

DURING 1946, Class I railroads spent approximately $1,602,000,000 for materials and supplies, consisting of about $702,000,000 for rail, crossties, and fuel, and the remainder, or $900,000,000, for miscellaneous materials and supplies. Most of this material was handled at least once by the stores department and a sizable portion was handled twice (in and out). In addition, material that was shipped from general stores to district, division or local stores required four or five handlings before it arrived at the place where it was used.

Railway stores stock ranges from butter and eggs to locomotive cylinders and driving wheels. It consists of perishables, such as milk, vegetables and meats, steel, lumber, rail, highly-finished items and delicate mechanisms for Diesel-electric locomotives and streamlined coaches. Because of the variety of materials purchased, stores officers must be specialists in all types of material handling.

Railway material is so varied in size and weight that it is not so easy to handle as uniform material. When materials consist of hundreds or thousands of cartons or boxes of the same size, storage and handling to and from stock with fork trucks and pallets become quite simple, but where numerous items require special treatment, detailed studies are necessary to determine the most economical and efficient method of handling.

It is estimated that 33 per cent of the cost of operating the American railroads is for materials and supplies, and since approximately 20 per cent of this figure consists of material-handling expense, a study of this cost is very important.

Unless this item receives adequate consideration, much labor obviously will be misused and wasted, resulting in the loss of thousands of dollars each year. There are many factors to be considered in such studies, of which the two most important are: (1) avoidance of unnecessary handling, and (2) use of material-handling equipment.

Studies reveal that the most effective way to achieve economy in handling

* Abstract of an address before the First National Conference on Material Handling held concurrently with the Material Handling Exposition at Cleveland, Ohio, January 16.

Left—Handling all types of materials, the railways must determine the most adaptable equipment for each job. Above—Three-wheel trucks are used to deliver light loads where speed and maneuverability are essential. Below—Palletized loadings are increasing as the carriers are specifying this method of shipment for a number of articles

material is not to handle it. This statement may sound ambiguous, but it is true when two situations obtain: (a) when, through adequate forethought, material can be handled in such manner that a second handling is avoided, and (b) when material is placed on trailers, skids, or pallets so it may be moved without rehandling.

Forethought Pays Off

No material is improved by handling, and, since handling costs are high, it pays to devise ways to avoid it. Under the heading "avoiding unnecessary handling" is the matter of forethought in moving material — when necessary — in such manner as to avoid future handling. For example, we place material for building or rebuilding freight cars near the point where it is to be used so that workmen may take it direct from stock piles.

Another means of avoiding unnecessary handling is to place large or bulky material unloaded from cars directly into stores stock, instead of taking it to some point for checking, and later moving it to stock piles or material racks. To accomplish this, the material must be checked at the car and taken directly to the stock piles. In cases where unfilled orders are held by the store, even the movement to stock piles may be avoided by arranging for the material to be delivered to local shops, or shipped direct to outlying stores.

The second way to avoid unnecessary handling is to use suitable conveyances for moving material to the location where it is to be used, or into cars for shipment. For example, by placing incoming green lumber directly on dry kiln trailers, it may be run through the kiln, and into the planing mills when it is dry, without additional handling. If it is to be run through the planer, it may be fed directly into the machine from the trailers. As it comes through the planer it should be placed on another trailer for movement to another machine or to the shop for application.

In former years, when it became necessary to move material, the primary task of the foreman was to determine how many men to use to accomplish the job. In many cases there were so many men around a heavy item that they did not have sufficient room to work properly. Since labor was cheap and plentiful, few devices were used to facilitate material-handling or to achieve an economical method. Today, we are faced with a shortage of man-power, and labor rates are so high that, in most instances, it is extravagant to pay for labor where it is possible to use mechanized equipment. Thus, such items as gravity rollers and specially-designed hand trucks soon pay

for themselves where there is sufficient movement.

About 30 years ago, stores officers decided that moving material by hand truck was too slow and expensive, and, consequently, they pioneered the method of moving material on trailers pulled by power-driven tractors. This resulted in a gradual development of trailers of various types and sizes to meet different needs, but it was soon learned that too many specialized trailers resulted in too many empty return hauls.

Today, various types of pulling tractors are in use, depending on the widths of runways over which they are operated, and on the number of trailers and weights of loads they are to pull. For delivering roundhouse material, a small tractor that can weave around machines or locomotives and travel in narrow aisles is desirable. Moreover, such a tractor seldom pulls more than one trailer at a time. For speedy delivery of numerous small items, light tractors equipped with beds for hauling material on the machine itself are used. On the other hand, tractors used at large shops and at car repair tracks, where many heavy loaded trailers are pulled, must of necessity be high-powered.

Lift Trucks and Skids

An important step in improving material-handling methods on the railroads was the introduction of lift trucks and skids. The benefits of skid operation are manifold. A few examples follow:

A substantial saving is accomplished in unloading incoming freight cars if the material is to be shipped to another store or to a point on the line where power or hand lift trucks are available. We even ship material on skids to some points where it must be unloaded by hand, since unloading from skids is no more difficult than unloading from the car floor.

There is, of course, a substantial saving in labor in unloading skid-loaded material from cars, where it can be performed with lift trucks. In addition, there is a further labor saving if the skids need not be released upon arrival at the store. The interest on the investment of a skid and its depreciation based on a service life of ten years amounts to only 14 to 20 cents a month. At this rate, one cannot afford to overlook this time-saver at current labor rates.

It has been found to be more economical to store certain heavy materials on skids at general stores and to use the materials directly from the skids when it is shipped to outlying stores. As an example, car journal bearings are placed on skids as they are manufactured at the foundry. The loaded skids are then placed crosswise on special trailers by a high-power lift truck. Moving each skid to the general store would be slow and would also tie up a valuable lift truck. To avoid this, trailers with four loaded skids are moved to the store by means of a pulling tractor. A lift truck removes the skids from the trailers as they arrive at the stores. As orders are received from outlying stores, it is a simple and inexpensive matter to move the skids into a freight car for shipment.

Storing material on skids may tie up some skids for two months before they are emptied, but the cost of this is insignificant, since it amounts to only 30 or 40 cents, compared with the cost of handling the bearings five or more times if the skids were released after each moving. In most cases the rehandling costs would amount to at least one dollar. Moreover, there is always the danger of injuring the lining of the bearings when handling. The damage to but one bearing could cost a thousand times the value of the skids if it should cause a hot box. Even the reconditioning of such a damaged bearing would cost more than the holding of a skid for a month.

For moving some items, specially-designed skids are practical. For instance, skids for handling locomotive air compressors, which provide for bolting the compressors on them, are of special benefit. The released compressor may be returned to the store on the empty skid and shipped to the point where repairs are to be made. Furthermore, specially-designed skids for distributing blacksmith coal and similar commodities to outlying points, where the material may be used directly from the skids, also facilitates handling.

A more recent innovation in railway material handling is the fork lift truck. While somewhat heavier and larger than the ordinary lift truck, it is more diversified in its service, since it does all the lift truck can do and may be used also for lifting many items without the use of skids or pallets. Large castings, springs and some packaged goods can be lifted from stock by the use of the prongs only and moved or loaded into freight cars.

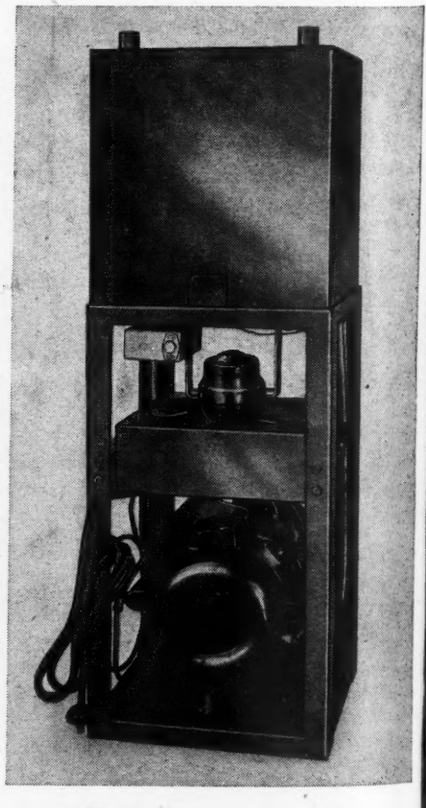
There are numerous possibilities for extending the use of pallets. In fact, we have only scratched the surface of this fertile field for economy in material handling. I can visualize that in the future most bulky and heavy materials will be shipped and stocked in storehouses on pallets. Pallet operation is so economical that material may be stored on pallets indefinitely with little regard to the cost of the pallets themselves. Eventually, manufacturers will cooperate in shipping material on pallets; perhaps orders placed for materials will specify this method of shipment. This will result in a substantial labor saving to the shipping firm as well as to the buyer. Furthermore, through the use of steel strapping for tying materials on pallets, thus making unit loads, the possibilities for pallet operations are unlimited. Not only railroad materials may be handled in this manner, but commercial freight as well.

Water Cooler

Designed to suit the requirements of railroad passenger cars, an electric drinking water cooler, which operates on 115-volts a.c. power supply and occupies less than a square foot of floor area, is announced by the Westinghouse Electric Corporation, Pittsburgh, Pa.

The new unit (Model WR4) may be mounted either on the floor or wall in a concealed location. The refrigeration system is sealed at the factory, and only water and electrical connections need be made at the time of installation.

Copper tube water connections are provided at the top of the nickel-plated cooling chamber, which has a storage capacity of 9 pints. A 1/60-hp. motor drives the forced draft fan which cools the 1/8-hp. motor compressor and finned tube condenser at the bottom of the unit. The refrigerant is non-inflammable and non-toxic Freon-12. From an inlet temperature of 80 deg. F., 3.6 gallons of water per hour are cooled to 50 deg. F. under conditions of 90 deg. F. ambient temperature. Controls include an automatic, adjustable temperature control, and an automatic reset thermostat protecting the motor against overheating.



Westinghouse water cooler

1,500-Hp. General Purpose Diesel

Baldwin develops a unit with turbo-supercharged eight-cylinder engine—Starting tractive force is 56,000 lb.

WITHIN the past year the Baldwin Locomotive Works, in collaboration with the Westinghouse Electric Corporation, has developed a 1,500-hp. general-purpose Diesel-electric locomotive, several of which are now in railroad service. The general characteristics of this locomotive are shown in the table. It has an over-all length of 58 ft. 0 in., weighs 280,000 lb. in working order, including the weight of steam generator and its water supply, and has a starting tractive force of 56,000 lb. at 30 per cent adhesion. With a gear ratio of 15:63 the continuous tractive force rating is 42,800 lb. and the maximum speed 62 m. p. h.

The locomotive is powered with a single 1,500-hp. turbo-supercharged Baldwin Diesel engine direct-connected to a Westinghouse generator.

The foundation of this locomotive is a cast-steel bed upon which is mounted the Diesel engine, electrical generating and control equipment, and the auxiliaries such as air compressors, cooling fans and traction motor blowers. All of the above-mentioned equipment is located ahead of the cab on the locomotive; to the rear of the cab are the steam generator and its control equipment mounted as a unit. The engine is placed on the underframe with the generator end adjacent to the operating cab so that the turbo-supercharger is on the left side of the locomotive and all of the electrical equipment is located in a compartment opening into the operating cab.

Engine Cooling Equipment

The engine cooling equipment, consisting of radiators, water pump, cooling fans and shutters, is located adjacent to the engine on the opposite end from the generator. The radiator compartment is next to the engine and houses the oil and water radiators, motor-driven cooling fans and automatic thermostatically-controlled shutters. A chain-driven centrifugal water pump mounted on the engine circulates the cooling water through the radiator and the engine. The radiator also embraces a section for cooling the lubricating oil, which is circulated through that portion of the radiator by a displacement gear pump chain-driven from the engine crankshaft. The lubricating oil supply is contained in the bedplate, whence it is drawn by the pump through a suction strainer and delivered to the radiator. After passing through the radiator, the oil flows through a strainer mounted on the engine on its way to the various engine parts.

The temperature of the engine cooling water and lubricating oil is controlled by thermostatic shutters which insure engine operation at correct temperature. Motor-driven propeller-type fans provide the cooling air.

Adjacent to the radiator compartment is a three-cylinder two-stage air compressor. The compressor is equipped with an unloading control set to unload at 140 lb. per sq. in.

At the opposite end of the locomotive from the radiator compartment is the steam-generator compartment housing a Vapor-Clarkson steam generator of 1,600 lb. per hr. capacity.

The locomotive is carried on two six-wheel, swing bolster, high-speed, pedestal-type swivel trucks of one-piece cast-steel frame construction having

Left—Steam generator and cab end of the unit. Below—The trucks have motors on two axles and are equipped with clasp brakes

center plates fitted with high-carbon-steel side and bottom liners, oil-lubricated, and protected by dust guards. The truck pedestal jaws are likewise fitted with high-carbon-steel liners. The axles are mounted in plain bearings with 6½-in. by 12-in. journals and 42-in. rolled-steel wheels. The trucks are fitted with clasp brakes. The braking ratio is 75 per cent at a brake-cylinder pressure of 50 lb. per sq. in.

Diesel Engine and Auxiliaries

The prime mover of this locomotive is a Baldwin vertical eight-cylinder four-cycle Diesel engine equipped with an Elliott-Buchi turbocharger, developing 1,500 hp. (for traction) at an engine speed of 625 r. p. m. The engine has cylinders in line with a bore of 12¾ in. and a stroke of 15½ in. The engine bedplate is of welded steel construction with an integral extension supporting the main generator. The engine crankshaft is a solid heat-treated steel forging having 8¾-in. main bearings and 8⅜-in. crankpins. The engine frame is likewise a welded-steel structure forming the cylinder housing and the upper part of the crankcase. The cylinders are fitted with chrome-plated cast-iron liners, heat-treated aluminum-alloy pistons and annealed cast-iron cylinder heads.

The fuel injection system is the solid injection type with spring-loaded spray nozzles and individual fuel pumps for each cylinder. A motor-driven transfer pump takes the oil from the fuel stroage tank located beneath the underframe and circulates it through filters to the fuel supply line from which the fuel injection pumps take their supply.

The engine governor is of the hydraulic-relay type gear-driven from the camshaft and controlled by means of an air-operated throttle from the operating cab. A centrifugal-trip type speed stop gear driven from the camshaft shuts down the engine if engine speed exceeds the maximum predetermined setting.

A detailed description of this type of engine and the turbocharger was included in an article describing the Seaboard Air Line 3,000-hp. Diesel-electric locomotive which appeared in the *Railway Age* of January 26, 1946, page 226.

Electrical Equipment

The main generator is a Westinghouse Type 471, direct-current interpole, self-ventilating, separately-excited machine. It is supported from the Diesel engine bed plate with the armature solidly connected to the engine crankshaft. The outboard end of the generator is fitted with a single self-alining roller bearing. The generator is used for cranking the engine with power derived from the battery. For this purpose, the generator is equipped with special field coils and an interlocked starting switch.

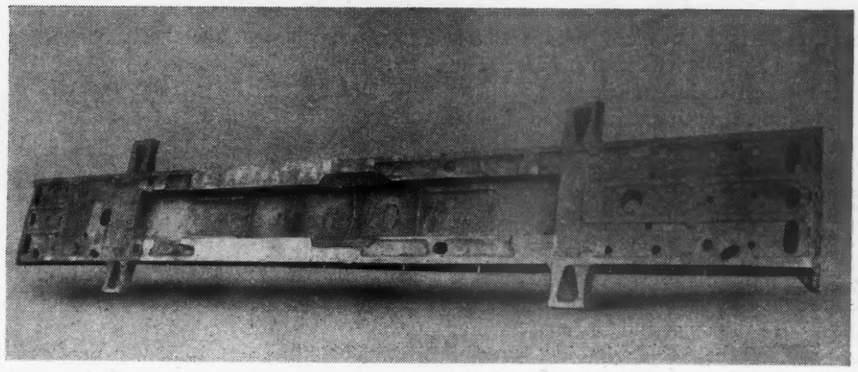
The outer axles on each of the six-wheel trucks are motor-driven, thus

General Characteristics of Baldwin 1,500-Hp. Diesel-Electric Locomotive

Track gage, ft.-in.	4—8½
Diesel engine:	
One, eight-cylinder, in-line, supercharged, b.hp. (for traction)	1,500
Driving motors:	
Number	Four
Type	370
Journal bearings (plain), size, in.	6½ × 12
Wheels:	
Driving, pairs	Four
Idling, pairs	Two
Diameter, in.	42
Wheelbase, ft.-in.:	
Truck	11—6
Total locomotive	43—9
Total weight, lb.:	
In working order	280,000
On drivers	187,000
Light	260,000
Maximum overall dimensions, ft.-in.:	
Width	10—2
Height	14—0
Length (inside knuckles)	58—0
Minimum radius curvature, locomotive with train, ft.	250 (23 deg.)
Supplies (total capacity):	
Lubricating oil, gal.	135
Fuel oil, gal.	1,000
Engine cooling water, gal.	300
Heating boiler water, gal.	800
Sand, cu. ft. (total)	30
Performance:	
Gear ratio	15:63
Tractive force, continuous, lb.	42,800
Speed at continuous rating, m.p.h.	10.5
Maximum safe speed, m.p.h.	65
Starting tractive force, (at 30 per cent adhesion), lb.	56,000

making for the locomotive an A1A-A1A wheel arrangement. The four Type 370 Westinghouse traction motors are series wound, force-ventilated and axle-hung with single reduction gearing to the axles. The motors are insulated entirely with Class B insulation. All four motors are permanently connected in series-parallel. Blower motors for cooling the traction motors are driven from the main generator, and there are flexible air ducts between the motors and the air conduit.

The auxiliary generator-exciter unit is mounted on the main generator and is driven by V-belts from the main-generator shaft extension. The auxiliary-generator part of the unit supplies power for charging the storage battery, control circuits, lighting circuits and fuel-pump motor. A voltage regulator holds the auxiliary generator voltage constant at all speeds. The exciter part of the unit is differentially wound. It supplies power for exciting the fields of the main generator, and in conjunction with an engine-control load regulator, maintains full engine output over the entire operating range.

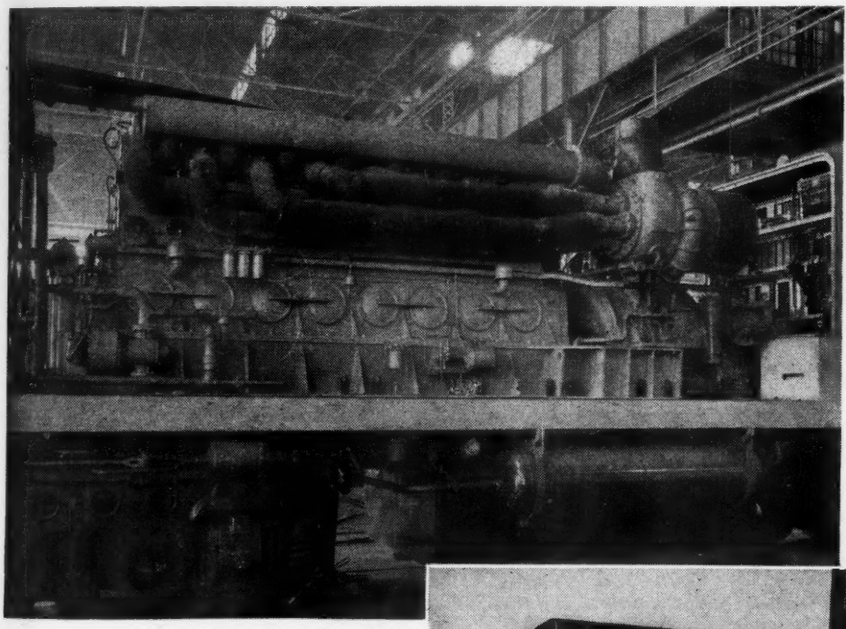


The locomotive underframe

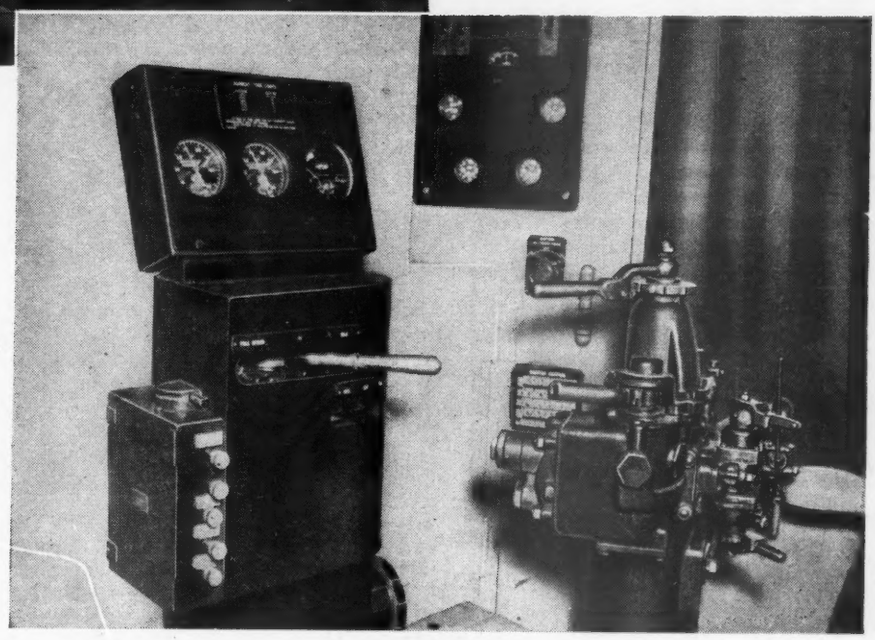
One set of electro-pneumatic equipment is provided to control the operation of the traction motors from the generator. This includes unit switchers and a reverser in the main circuits. Wheel-slip relays operate a buzzer warning the engineman when slipping of a pair of wheels occurs. At the same time, power is automatically reduced until the wheels stop slipping, after which power is automatically reapplied to coincide with the position of the throttle. The cabinet housing the control apparatus is mounted in an easily accessible position adjacent to the cab.

The storage battery for engine starting, control circuits and lights is made up of 32 lead-acid type cells. The headlight is recessed and the number lights in the sides of the locomotive are electrically lighted.

The cab is constructed of electrically welded steel plates and shapes, the entire unit being rigidly secured to the underframe. The cab is fitted with both stationary and operable metal cab windows and doors, and both window and



Above—The power plant and the electrical controls

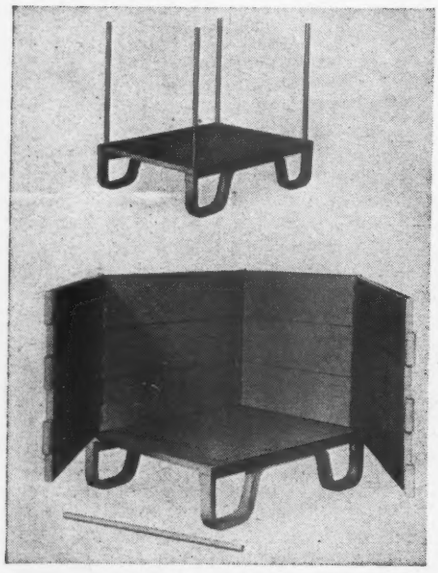


Right—The operating controls in the locomotive cab

door frames are glazed with shatterproof glass. The walls and ceiling of the cab are insulated. The cab is equipped on both sides with cushion seats having upholstered arm rests. The cab fixtures include pneumatic window wipers, fire extinguisher, cab lights, heater, brake gages, wheel-slip indicator, headlight and engine-compartment light controls, bell, horn and sander operating controls. The engine compartment just ahead of the cab is also constructed of steel substantially braced with carlines. It is designed for ready access to and removal of equipment and has roof hatches to provide access to engine heads, valve actuating mechanism and other equipment. Side louvers provide engine-compartment ventilation. Permanent lighting fixtures are installed in the engine compartment and the flooring is of the non-skid type.

Sand boxes with a total capacity of 30 cu. ft. are located at the ends of the locomotive and the sand is supplied to the rail by air-operated sanders. The sand boxes may be filled from outside the locomotive.

The fuel-oil tanks and air reservoirs are suspended beneath the locomotive underframe between the trucks and the steam generator water supply tank is located on the underframe beneath the generator.



The all-steel box panels can be swung open for greater accessibility

Collapsible Steel Box

A new type all-steel collapsible box, for use with skid platforms fitted with corner stakes, has been announced by the Market Forge Company, Everett, Mass. This sectional box consists of a series of steel panels 12 in. high, each provided with loops which slip over the corner stakes of the skid platforms, and each so constructed as to interlock with adjacent panels. It is claimed that this interlocked construction constitutes material reinforcement for the box as a whole.

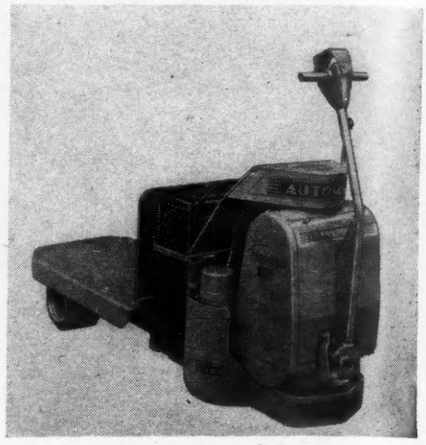
Employing the panel construction, it is possible to equip a skid platform with side panels only, or with end panels and only one side. In any event, when a single stake is removed, the side and end involved may be swung outward, as if hinged, to facilitate removal of the load. Constructed without bolts or rivets, the box panels can be readily disassembled for storage purposes.

1947 Transporter Uses Electric Lift

A new model of its Transporter motorized hand truck, featuring "ATCO" electric lift, has been announced by the Automatic Transportation Company, 149 West 87th street, Chicago 20. The unit is equipped with a standard 11-plate battery, which is said to be a factor in reducing its operating cost, while all controls—forward and reverse, speed, lift, steering and brake—are so arranged that they may be regulated by one hand and operated almost simultaneously, with resulting economy in time. Guards on this truck are so designed as to protect its lift components from damage during operation, and yet leave them accessible for maintenance.

Among its other features the unit has a double-position brake, which may be applied either by raising or lowering the guide handle. This is claimed to make effective braking action simple under varied operating conditions, as well as to provide both steering and braking leverage at the same time for operations on ramps. Combination of the brake and one-hand controls with electric lift enables the operator to guide the transporter platform beneath a skid or pallet, brake the truck, lift the load, and reverse direction all in one motion without stopping.

This truck, as well as a companion model with ATCO foot lift, is available in 4,000 and 6,000-lb. capacity platform models and a 4,000-lb. capacity pallet model.



Coordinated controls and rapid lift action of this model facilitate handling volume loads

* * *

An example of the use of plastics by the railroad industry are the Pantasote car curtains made by the Pantasote Corporation, Passaic, N. J., from two laminated fabrics to prevent wrinkling and to give added strength and wear. When applied to coaches, privacy can be obtained by mounting on hinged angles which can be swung over the backs of the seats

GENERAL NEWS

Supreme Court Rejects Appeal of Rio Grande

Refuses again to send reorganization plan back to the I. C. C.

The United States Supreme Court on February 3 refused again to order a re-examination by the Interstate Commerce Commission of the Denver & Rio Grande Western reorganization plan which has been approved by the commission and the reorganization court. "The reorganization should be carried out," said the 8-to-1 decision in which the court found the debtor railroad had failed to establish the existence of changed conditions of a kind warranting a different ruling from the court's previous determination of June 10, 1946.

Justice Reed delivered the opinion of the court while the lone dissent came from Justice Frankfurter. The latter protested against the majority's failure to recognize, as a "controlling change in circumstances," the current movement in Congress to enact legislation enabling railroads undergoing reorganization to effect readjustments of their financial structures and thus withdraw from the bankruptcy proceedings in which they are now involved.

Prolonged Litigation—The present case reached the Supreme Court on appeal from the tenth circuit court of appeals' recent action staying further proceedings in connection with the D. & R. G. W. reorganization until it heard argument on the debtor's appeal from the refusal of the federal district court at Denver, Colo., to remand the plan to the I.C.C. for modification in the light of changed conditions. The Supreme Court's June 10, 1946, decision (see *Railway Age* of June 15, 1946, page 1193) had reversed the same circuit court of appeals to uphold the district court's ruling that holders of the debtor's general mortgage bonds were "not reasonably justified" in rejecting the reorganization plan as approved by the I.C.C. It was after that adverse ruling in the junior bondholders' case that the debtor itself launched the present phase of the litigation.

In doing so it specified three categories of changed conditions since the commission hearings on the plan in May, 1941. They were: "(a) The decline in money rates to a level far below the rates prevailing at these dates; (b) the recent public offering by the government and purchase by private capital for private operation of the steel plant at Geneva, near Provo, Utah, which had been constructed by the government in the exigencies of the war at a cost in excess of $200,000,000; (c) a permanent elevation of national income through intensified industrial activity involving for the indefinite future a greatly increased demand for railway transportation."

The court found generally that the foregoing were the "very kinds of changed conditions" which were alleged in the case on which it passed last June. In conceded that the factor of private operation of the Geneva plant was not then involved, but asserted that the shift of ownership "has only moderate significance"; for the plant "may or may not turn out to be strategically located for private low cost operation and distribution."

"The questions of interest rates and increased earnings from the Geneva steel plant," the court added, "were considered by the commission and the district court before the order of confirmation. The approval of the plan by the commission on June 14, 1943, appraised economic changes subsequent to the hearings."

Senior Creditors Come First—Later on, the decision noted that the I.C.C. had made no finding that the cash value of the securities allocated to the senior creditors paid them in full. It continued: "Until it can be contended with some show of reasonableness that the creditors senior to the creditors and stockholders whom the debtor represents here have received more in value than the face of their claims, the debtor's insistence on a re-examination of the plan is without substantial support."

So far as the period since its June 10, 1946, decision was concerned, the court found no basis for a conclusion that there has been "a significant change in interest rates, earnings available for interest or traffic." Neither did it think it should stay the reorganization proceedings to await possible further enactments like S.1253, the voluntary reorganization bill which was passed by Congress last year only to be vetoed by President Truman. As the majority saw it, the court "must continue to act under the now existing law." Thus it proceeded to vacate the circuit court order staying the reorganization proceeding and to affirm the district court order denying the debtor's petition for a remanding of the plan to the I.C.C.

One Dissenter—As indicated above, Justice Frankfurter's dissent was mainly an argument in support of his view that the court should have taken into consideration the policy with respect to railroad reorganizations on which "Congress and the President have clearly expressed themselves"—the former in enacting S.1253 and the latter in the "Memorandum of Disapproval" explaining his "pocket-veto" of the measure. "The President," Mr. Frankfurter said, "did not veto the bill because

(*Continued on page 327*)

A.A.R. Member Roads Discuss Car Shortage

Publicity budget approved; Dr. Parmelee elected vice-president

Variations on the theme "there aren't enough freight cars to go around" composed the bulk of the discussion at the member road meeting of the Association of American Railroads held in Chicago on January 31. According to one of those who attended, the eastern roads accused the western of having all their open-tops, and the western lines charged that the eastern carriers had all their Class A box cars. The conclusion: "The car shortage is well distributed over the country."

The materials problem, at least, is likely to ease somewhat this year, it was indicated, as it was revealed at the meeting that, at an A. A. R. conference with the

Bachrach

Dr. Julius H. Parmelee

Iron & Steel Institute in New York the week of January 20, it was unofficially estimated that sufficient steel would be forthcoming for normal maintenance of existing cars and for the construction of a minimum of 7,000 new cars a month, with the possibility of sufficient steel for 10,000 new cars a month.

To fill the needs of the West for box cars, about 2,000 empties are being sent by the eastern roads daily on direct Car Service Division orders, it was reported.

Colonel J. Monroe Johnson, director of the Office of Defense Transportation, was

present at the meeting and set forth his views on ways to alleviate the car shortage. Among other measures, he repeated his appeal for increased orders for new equipment by the railroads and for a $2 per diem rate to encourage increased car ownership and speedy return of cars to home roads.

It was brought out that the A. A. R. will defend the present per diem rate of $1.15 before the Interstate Commerce Commission—although a number of its members think it too high—on the grounds that this rate is fair to the owner road and that per diem should not constitute a punitive charge. A complete and entirely new study of car costs has lead the association to this view. It is understood that the directors of the A. A. R., at a meeting held the previous day, discussed the possibility of a graduated per diem rate, varying according to car age, condition and extent of refinements.

Approval was voted for the association's 1947 public relations and advertising budget of $1,574,000, and for continuance of its long-range national magazine institutional advertising campaign at full strength.

It was revealed that officers of the A. A. R. have met with officers of the Chesapeake & Ohio and its affiliates (which, on October 15, announced withdrawal from full participation in the association) and arrived at a basis of continued participation by the three "Young roads" in "the four-fifths" of the A. A. R. activities necessary for integrated operation of the country's railroads. This basis of participation and expense-sharing has been accepted by the A. A. R. and tentatively by the C. & O. representatives, but has not yet been approved by the C. & O. and affiliated managements.

The election of Dr. Julius H. Parmelee as vice-president of the association, announced after the meeting, was in recognition of his "long and excellent service" as director of the Bureau of Railway Economics, it was stated, and no change in his duties or responsibilities was indicated.

Dr. Parmelee's intimate acquaintance with railway statistics and his authoritative analyses of railway prospects have been the backbone of the railroads' case in many important rate, wage and financial proceedings before the various government agencies sharing control of railroad affairs, and he has regularly appeared before committees of Congress to provide a statistical and economic background to guide their consideration of legislation affecting the industry.

The newly-elected A. A. R. vice-president was born in Trebizond, Turkey, of American parentage, on October 10, 1883. He attended Yale University, from which he was graduated with the B.A. degree in 1904. After spending three years at Yale as an assistant instructor and two years as a special examiner on the staff of the Interstate Commerce Commission, he received the Ph.D. degree from Yale in 1910.

In 1911 Dr. Parmelee began his work with the Bureau of Railway Economics as a statistician. He has been continuously connected with that organization since that time, and since 1920 has been its director. His many published contributions on railroad and economic subjects include the comprehensive annual reviews of railway operations which have been a feature for years of the Annual Statistical issue of *Railway Age*.

Atlanta Transportation Club Elects Officers

At a recent meeting the following were elected to office for the year 1947 by the Transportation Club of Atlanta: W. E. Carroll, Charleston & Western Carolina, president; Hiram C. Blair, Atlantic Steel Company, first vice-president; W. T. Quarles, Atlantic Coast Line, second vice-president; and Don Joiner, Seaboard Air Line, Secretary-treasurer.

Railway Express Shipments in 1946 Surpassed All Records

Express shipments by railroad in 1946 surpassed all existing records, the Railway Express Agency has announced. Climaxing a year in which 233,520,508 express shipments were handled, the agency reported that each month saw new shipping records established, with December topping the list with nearly 22½ million shipments. The year's increase over 1945 exceeded 24 million.

New York continued to lead the nation in the number of express shipments handled at one point, with more than 30 million shipments received and forwarded in 1946.

Edison's Work in Telegraphy Aided Railroads

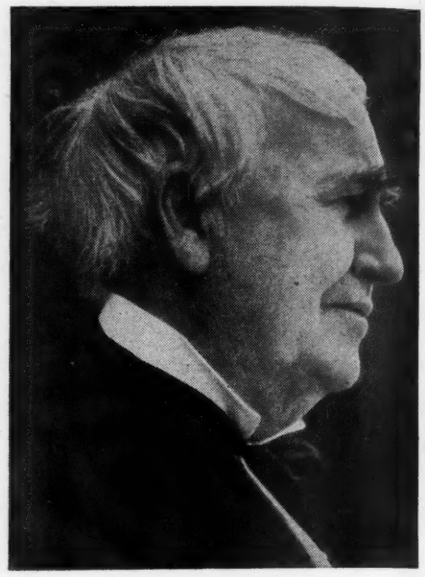
Railroads exerted a strong influence on the late Thomas A. Edison, whose one-hundredth birthday anniversary will be observed on February 11. In turn, many of his inventions contributed to the growth and development of the railroads.

Edison's first contact with the business world was as a 12-year-old newsboy and candy butcher on a Grand Trunk train running between Port Huron, Mich., where his family then resided, and Detroit. This venture resulted in his introduction to electricity and also helped to crystallize his interest in chemistry. His initiation in these fields was made through the telegraph, as J. U. MacKenzie, station agent at Mt. Clemens, Mich., whose infant son Edison had saved from death under the wheels of a moving freight car, taught him telegraphy as a reward.

Then, as now, telegraphy was a vital link in the communications system and Edison's proficiency as an operator, plus his inordinate curiosity, led him to some of his earliest inventions.

Telegraphic communication during the Seventies was hampered by the fact that only two messages—one incoming and one outgoing—could be handled simultaneously over the same set of wires and because the speed of sending messages necessarily was limited to the ability of the operator on the receiving end to write them down in longhand. Edison eliminated both bottlenecks.

First, he improved on the existing so-called duplex method of sending and receiving by devising means whereby two outgoing messages could be sent over the same set of wires at the same time. Enlarging upon this procedure, he developed a form of quadruplex telegraphy, which permitted four messages to be sent simultaneously—two messages outgoing and two messages incoming. This was accomplished in 1874, when Edison was 27.



Thomas A. Edison

In the same year Edison also invented a system for sending and receiving telegraph messages automatically. For this, he devised a machine which automatically sent and recorded dots and dashes by perforating strips of paper. An extension of this work was his Roman alphabet machine in which the perforations formed real letters rather than characters in the Morse alphabet.

While serving on the Grand Trunk around 1860, Edison made the acquaintance of George Pullman who, at that time, had a small shop in Detroit where he was working on plans for his sleeping cars. Pullman made for young Edison several pieces of wooden apparatus which the latter used to set up a mobile chemistry laboratory in the train's baggage car. An explosion of his chemicals, it is recorded, set fire to the baggage car and an irate trainman boxed Edison's ears and put him off the train. This incident, the inventor always believed, lead to his deafness.

G. M. "Train of Tomorrow" Nearing Completion

The General Motors "Train of Tomorrow," an experimental project to try out advanced ideas for improvement in railroad travel of the future, will be ready for public exhibition this spring, according to an announcement just released by the corporation. Members of the press were shown details of the train in Chicago on February 4, including colored sketches, new materials and the unique construction features of the cars which are nearing completion at the plant of the Pullman-Standard Car Manufacturing Company. The project, which was conceived in the fall of 1944, has been in the development and construction stage since it was announced over a year ago.

The new train will be put on public exhibit in major cities across the country. It will include a G. M. Electro-Motive Diesel

locomotive and four cars—a dining car, chair car, observation lounge car and sleeper—all of which will have the Astra Dome feature—a glass-enclosed, upper-level compartment located in the roof, seating as many as 24 passengers. The Astra Dome idea has already received extensive and highly satisfactory service tests on the Chicago, Burlington & Quincy, which applied a Vista Dome to one of its modern stainless steel passenger cars early in 1945, the design being developed in conjunction with General Motors engineers and styling experts.

General Motors already has announced that it does not plan to go into the railroad passenger car business, but is interested in the entire field of transportation, with particular reference to Diesel motive power supplied by the Electro-Motive division; air conditioning equipment supplied by the Frigidaire division; anti-friction journal box bearings supplied by the Hyatt Bearings division, and Diesel generating equipment supplied by the Detroit Diesel division and the Delco Products division.

The "Train of Tomorrow" will incorporate a number of important new features developed by these various divisions of General Motors. The Astra Dome design will offer an opportunity for scenic enjoyment which is entirely new. The car interiors will permit much more flexibility of movement, due to new planning of seating and sleeping accommodations. Every opportunity is being taken to use effectively available new metals, plastics and textiles developed through the war-time years.

T. & P. Outlines Credit Plan

The Texas & Pacific has issued a tariff stipulating the terms and conditions under which that road will inaugurate the use of credit cards. The plan, now before the Interstate Commerce Commission, is expected to become effective on February 17. Card holders, the road stated, can use their credit for tickets, meals and baggage charges. Tickets may be purchased by telephone, telegraph or letter, and will be delivered to offices or to passengers on trains, according to the plan.

New Forest Products Research Association Organized

A Forest Products Research Society—designed to meet the need for a national association devoted entirely to stimulating wood research, development, utilization and production—has been organized, effective February 1, following a meeting held at Madison, Wis., of industrial, educational and government forest products technologists.

Its formally-stated objectives and purposes, as set forth in the articles of association, are "to facilitate the interchange of information among individuals and organizations who are interested in forest products research, development, or utilization: (a) by abstracting papers, reports, and other publications; (b) by publishing and distributing pertinent information; (c) by encouraging cooperation among interested persons; (d) by promoting standard tests methods and procedures; and (e) by sponsoring meetings for the presentation and discussion of reports of investigations and experiences of its members and others, for the interchange of ideas, and the broadening of acquaintanceships among individuals interested in forest products research, development, or utilization; and in general, to encourage and promote the efficient utilization of wood and other forest products."

Membership in the society is open to men who are engaged or interested in any phase of forest products activity. This representative cross-section of the wood industry, including both the highly-specialized technician and the supervisory shop man, will provide a common meeting ground for theory and practice and encourage quicker application of laboratory findings to industrial operations, officers point out.

National officers elected to head the new society in its first year include Fred W. Gottschalk, (technical director, American Lumber & Treating Co., Chicago), president; George A. Garratt, (dean, School of Forestry, Yale University, New Haven, Conn.), vice-president; William J. Baker, (technologist, U. S. Forest Products Laboratory, Madison, Wis.), secretary-treasurer; and Bror Grondal (professor of forestry, University of Washington, Seattle, Wash.), past organization chairman.

Six regional board members, named to serve terms ranging from one to three years, include Edward G. Locke, (chemical engineer, U. S. Forest Service, Portland, Ore.), Northwest; James F. Hamilton, (technical service director, Perkins Glue Company, Philadelphia, Pa.), Northeast; Jac. H. Tigelaar, (director of research and tests, Haskelite Manufacturing Corporation, Grand Rapids, Mich.), North-Central; Robert A. Cockrell, (associate professor of forestry, University of California, Berkeley, Cal), Southwest; Carl A. Rishell, (director of research, National Lumber Manufacturers' Association, Washington, D. C.), Southeast; and Kenneth G. Chesley, (director of research, Crossett Lumber Company, Crossett, Ark.), South-Central.

London Transportation Club to Remain in Operation

An attempt is being made to maintain the Transportation Club of London on a self-supporting basis. The club was sponsored during the war by the four British railways and the London Passenger Transport Board to provide hospitable surroundings and a meeting place for overseas transportation men as an allied goodwill gesture and contribution to the war effort.

It was originally intended to close the club in 1946, upon the return home of so many overseas members. However, in view of its popularity, it was later decided to continue its operation for a further period. An attempt is being made by the present membership not only to keep going on a permanent basis, but also to make the club self supporting. This is being achieved by the sale of debentures in England and the response to date has been encouraging. Former members wishing to continue or other transportation men to whom the club might prove of service may obtain further details from the Associated British & Irish Railways, 9 Rockefeller plaza, New York.

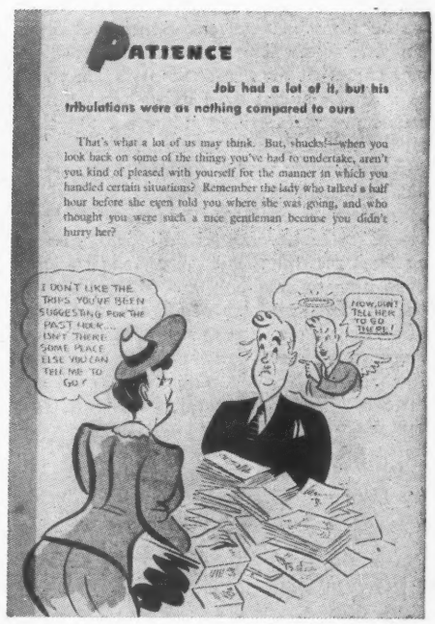
C. & O. Schedules Second Educational Tour

Approximately 300 members of Virginia boys' clubs will board a special 13-car Chesapeake & Ohio train at Newport News, Va., on February 18 for a four-day, nominal fare, educational tour to Detroit, Mich. This tour, postponed from December 3 because of the coal strike's effects upon the railroads at that time, is the second under the plan of Robert R. Young, chairman of the C. & O., to provide educational travel opportunities at token expenses to boys' clubs in cities along the C. & O. line. (See the *Railway Age* for October 19, 1946, page 654.)

C. & N. W. Issues Courtesy Pamphlet to Employees

"Politeness pays! Quick with the smile! Who said railroading is a tough business? If you mind your P's and Q's it's as simple as any other business. W-e-l-l, not quite . . . but if you are sincere in wanting to win your spurs in this business, then minding your P's and Q's makes it just so much easier."

These opening words of the Chicago & North Western's new pamphlet on public relations explain both its purpose and its method of approach about as well as any that could be uttered. Each page of the pamphlet is devoted to an explanation of the need for courtesy in a particular kind of trying situation that railway employees are likely to encounter. A humorous cartoon illustrates each situation. The pamphlet has been distributed to employees of the system who have contact with the public in their daily work. It is not available for general distribution.


PATIENCE
Job had a lot of it, but his tribulations were as nothing compared to ours
That's what a lot of us may think. But, shucks!—when you look back on some of the things you've had to undertake, aren't you kind of pleased with yourself for the manner in which you handled certain situations? Remember the lady who talked a half hour before she even told you where she was going, and who thought you were such a nice gentleman because you didn't hurry her?
I DON'T LIKE THE THING YOU'VE BEEN SUGGESTING FOR THE PAST HOUR... ISN'T THERE SOME PLACE ELSE YOU CAN TELL ME TO GO?
NOW, DON'T TELL HER TO GO THERE!

Fletcher Still Awaits Tobey's Confirmation of Charges

R. V. Fletcher, president of the Association of American Railroads, said on February 5 that he had received no reply from Senator Tobey, Republican of New Hampshire, to the January 22 letter wherein he denied charges the senator had made with

respect to his past legislative activities on behalf of the A. A. R. As reported in the *Railway Age* of February 1, page 288, Judge Fletcher told Mr. Tobey that he would "apologize abjectly and sever my connection with the railroad industry immediately" if the senator was able to have the charges confirmed.

Meanwhile, Senator Tobey was not otherwise silent. On January 31, he delivered to the Senate a long speech assailing the pending Reed bills (S. 110) which would stay the operation of anti-trust laws with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission. It was at the recent Senate interstate and foreign commerce committee hearings on this bill that the senator made the still-unconfirmed charges against the A. A. R. president.

Senator Tobey's speech was entitled "Small Business and Transportation Monopolies." He called S. 110 "the railroad monopoly bill" which would "cartelize the transportation industry." From the records of past congressional investigations he quoted testimony of railroad executives who had criticized the A. A. R., coming at length to this general assertion: 'So complete is the present monopoly power of a few big railroads over the smaller railroads in the Middle West, the South and other portions of the United States, that the former can treat the presidents of small roads as if they did not even exist, despite their attendance at meetings of the presidents of all the railroads in their association."

Recognizing the "wide knowledge of technical railroad matters" possessed by S. 110's sponsor, Senator Reed, Republican of Kansas, Mr. Tobey regrets to find himself against the bill; but "my long-standing opposition to monopoly and my devotion to the anti-trust statutes which are a bulwark of all the people leaves me no other course." Anticipating that Congress may nevertheless pass the bill, Mr. Tobey closed with an appeal to the President "to make it clear that he will veto the attempt to wreck the anti-trust statutes."

When Senator Tobey had finished, Minority Leader Barkley arose to recall that he had voted against S. 110's predecessor, the House-approved Bulwinkle bill, when it came before the Senate committee on interstate commerce last year. Mr. Barkley said that he saw no more reason to exempt railroads from the anti-trust laws than to exempt air lines, bus lines "or any other form of transportation." Seemingly the minority leader was not sufficiently well informed to know that S. 110 would apply to all carriers regulated by the I. C. C.; and that the air lines already enjoy similar immunity under provisions of the Civil Aeronautics Act.

Engineers "Plug" Restoration of Foreign Technical Libraries

An appeal directed to engineers all over the United States to contribute to the drive to help restore war-damaged or destroyed technical libraries in Europe, Asia and the Philippines has been issued by the Committee on International Relations of the Engineers Joint Council. Both money for the purchase of new books, and selected used technical books and periodicals are needed.

Checks should be sent to Joseph Pope, chairman of the Book Commission, Engineers Joint Council, 29 West 39th street, New York 18. This fund is used to fill specified needs of the damaged libraries. Offers of books, containing lists by author and title, should also be sent there. The books themselves should not be shipped until full instructions are received.

Santa Fe Skyway Expands

A contract air-freight service between San Francisco, Cal., and the midwest was inaugurated on February 3 by Santa Fe Skyway, Inc. (air subsidiary of the Atchison, Topeka & Santa Fe), the company has announced. It has operated air service between Los Angeles, Cal., and the Chicago area since July, 1946.

John D. Conway Retires

The Railway Supply Manufacturers' Association has announced the appointment of A. W. Brown as secretary and treasurer, succeeding John D. Conway, who had held that post since 1910. The office of the secretary and treasurer has been transferred from Pittsburgh, Pa., to 30 Church street, New York 7.

Mr. Conway, who continues an advisory connection with the association as honorary secretary, was born at Vanport, Beaver County, Pa., December 15, 1863. Following a public school education he entered railway service in 1881 as a telegraph operator on the Cleveland & Pittsburgh (now part of the Pennsylvania). From 1885 to 1888 he held a similar position on the Pittsburgh & Lake Erie, after which he was for three years a clerk in that road's motive power department. From 1891 to 1910 he was chief clerk in its motive power and car departments. He became secretary of the Railway Club of Pittsburgh when it was organized in 1901, and since 1918 he has held that post continuously.

Young's Group Is "Federation for Railway Progress"

The new railroad association being organized by Robert R. Young, chairman of the Chesapeake & Ohio, will be called the "Federation for Railway Progress," T. J. Deegan of the C. & O. public relations staff said this week in Washington, D. C. The formal announcement of the new association's organization will be made on February 24 at the C. & O. office in Washington's Transportation Building, where the Association of American Railroads' headquarters is also located.

The new federation will establish its headquarters at Cleveland, Ohio, and the initial railroad membership will include the C. & O. and its affiliated lines which withdrew from the A. A. R. last October. Other members are expected to be railroad security holders and representatives of railroad labor, shippers, and the railroad supply industry. Also, Mr. Deegan indicated that the federation will have an "advisory committee" comprised of 10 of the "top" persons of the country.

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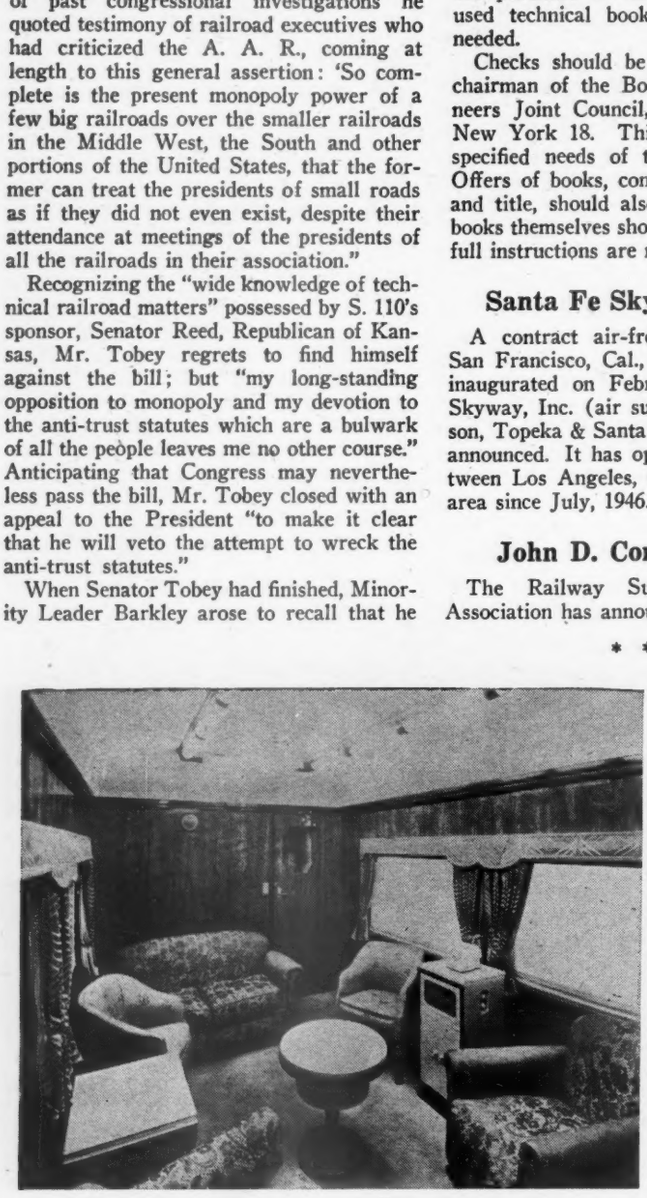
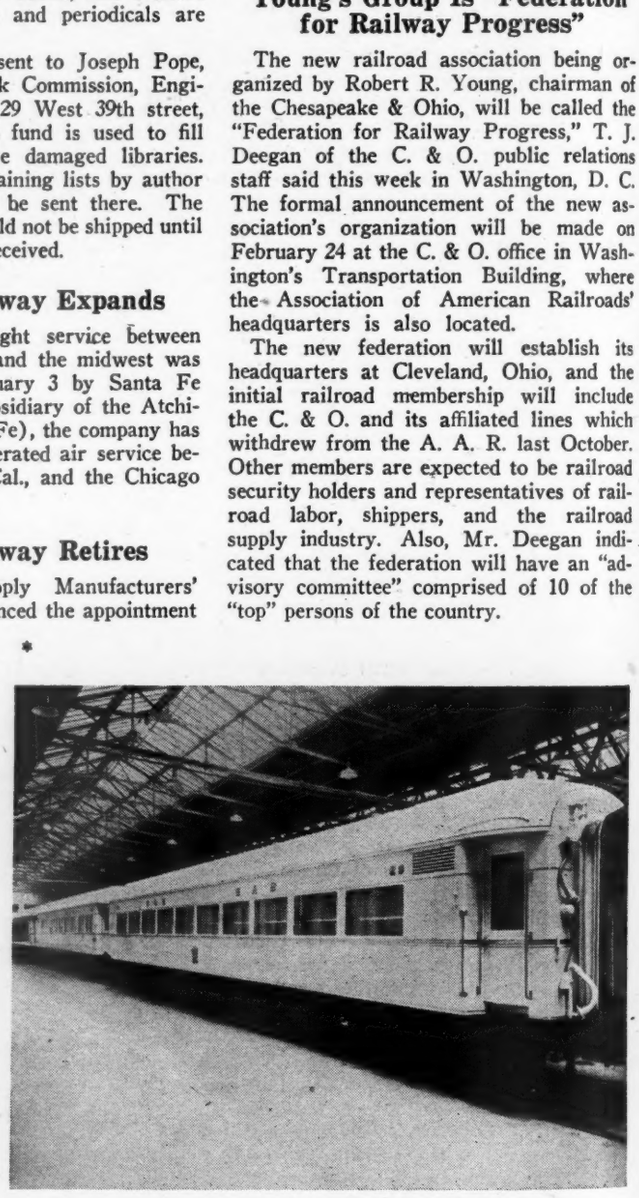




Interior and exterior views of the train in which the royal family of Great Britain will tour the Union of South Africa

The train is fitted with such features as radios, telephones, private baths, and other modern comforts. The visitors will find relief from Africa's heat while aboard the train, for the cars have been air-conditioned with equipment furnished by the Carrier Corporation of Syracuse, N. Y.

Electrical Engineers Discuss Transportation Subjects

Subjects and authors of the seven papers of specific interest to steam railroad men presented at the annual meeting of the American Institute of Electrical Engineers, held in New York, January 27-31, 1947, are: "3,000-hp. Diesel-Electric Locomotive for the Seaboard Air Line Railway," by D. R. Staples, Baldwin Locomotive Works, Eddystone, Pa., and T. L. Weybrew and C. A. Atwell, both of the Westinghouse Electric Corporation, East Pittsburgh, Pa.; "Developments in Control Systems for Diesel-Electric Locomotives," by M. D. Henshaw of the General Electric Company, Erie, Pa.; "A Power Plant Regulating System for Diesel-Electric Locomotives," by C. B. Lewis, General Electric Company, Erie; "Developments in Diesel-Electric Traction-Generator Excitation Control Systems," by C. A. Brancke and G. M. Adams, both of General Electric Company, Erie; "Braking Resistors and Control for Diesel-Electric Locomotives," by E. F. Weiser, of the General Electric Company, Erie; "Developments in Current Collectors for High-Speed Service," by B. F. Langer, Westinghouse Electric Corporation, East Pittsburgh; and "Investigation of Silicone Insulation of High Temperature Railway Motor," by George Grant, III, and T. A. Kauppi, both of the Dow-Corning Corporation, Midland, Mich., and Graham L. Moses, of the Westinghouse Electric Corporation, East Pittsburgh.

The 3,000-hp. Seaboard locomotive is a Baldwin-Westinghouse unit which was described in the *Railway Age* of January 26, 1946. The first-mentioned paper describes the electrical equipment in considerably greater detail—the engine control equipment being featured as a simple arrangement consisting essentially of a pneumatic throttle, a carbon pile type rheostat called a carbonstat, electrically connected in series with the exciter battery field, a pilot valve mounted on and operated by the governor and a metering valve.

The four papers prepared by men representing the General Electric Company was concerned primarily with control equipment for the Alco-G.E. locomotive built for the Santa Fe and described in the October 19, 1946, *Railway Age*. The control was made to meet new requirements of the larger (2,000-hp.) engine and quite elaborately includes traction power, generator and motor voltage and current and engine speed within the limits of the engine output and wheel slipping. It also includes temperature controls and dynamic braking controls and provides a high degree of plant protection against damage which might be caused by equipment failures. The generator control employs saturable core reactors and selenium rectifiers which reduce the number of moving parts required, and an amplidyne exciter to effect quick control response.

The discussion of the locomotive papers was concerned almost entirely with the relative merits of the two control systems. No conclusion was drawn.

The paper by Mr. Langer described an experimental double-shoe pantograph which has been eminently successful in collecting current at high speeds without arcing at the point of contact. The collector shoe on older type pantographs is mounted from pivots below the shoe. Thus both wind pressure and wire friction cause the shoe to rotate or tip back so that the leading edge of the contact shoe rides against the wire and the trailing edge drops below the wire. It is also subject to a fluttering action which contributes to arcing at the point of contact.

The new current collector has a shoe which is supported on flat springs in such a way that the shoe rotates about a point above the wire. Thus wind pressure and wire friction are made to oppose each other and the forces tending to tip or rotate the shoe are greatly reduced. A reduction of wind pressure is effected by cutting slots in the top of the collector shoe channel and holes in the flanges.

Certain types of silicone resins used in conjunction with mica, glass and asbestos offer attractive possibilities for insulating railway traction motors, particularly those on Diesel-electric locomotives. They will stand considerably higher temperatures than other insulating varnishes and are highly moisture resistant. The paper "Investigation of Silicone Insulation on High-Temperature Railway Motor" described a test made on a P. C. C. street car motor which included operation for 1,675 hours at a temperature of 285 deg. C. with 46 cycles of severe humidification. Results of the test indicate the desirability of using this insulation on traction motors. Some practical problems involving cleaning, overhaul and reinsulating such a motor remain to be solved, but the discussion which followed the paper indicated there were no insuperable problems involved.

Train Set on Fire After Gas Truck Collision; 3 Dead

Three persons were killed—including the engineman, fireman and one passenger—and approximately 70 other persons were injured, some very seriously, when the Southern Pacific's "San Joaquin Daylight" struck a gasoline truck trailer, which exploded and set fire to the train shortly after 3 p.m. on February 4, at Kingsburg, Cal.

The fire damaged the engine and the first nine cars of the train, but did not harm the four rear cars. The streamliner, northbound from Los Angeles, Cal., to San Francisco, was not derailed. The driver of the truck, which had just cleared the main line track when the train struck its gas-filled trailer, asserted he did not see the approaching train.

The New Haven Mentions the Weather Reports

Continuing its current advertising emphasis on the dependability in all weathers of transportation on the ground, the New York, New Haven & Hartford has prepared for distribution to business men in its territory a folder designated a "rain, fog and snow chart" for reference in planning business trips.

The colorful center spread of this folder puts emphasis on the argument that the Eastern seaboard's weather is "uncertain" one day out of three, to support which it includes charts showing day-by-day weather records over a three-year period for New York, Hartford, Conn., and Boston, Mass., in which distinctive colors indicate the prevalence of rain, snow and heavy fog. "When you've *got* to get there, take the train!" says the New Haven, and it also points out that the train traveler has room to stretch his legs, can work en route, can send telegrams on the way, and has a choice of food he can eat in comfort at a table.

Supreme Court Rejects Appeal of Rio Grande

(*Continued from page 323*)

he disapproved its purposes. He vetoed the bill because it was too weak, in some of its provisions, for carrying out those purposes." Previously, Mr. Frankfurter had pointed out that the government took no position in the present case after having supported the reorganization plan in the earlier litigation to which it became a party because of the Reconstruction Finance Corporation's position as creditor.

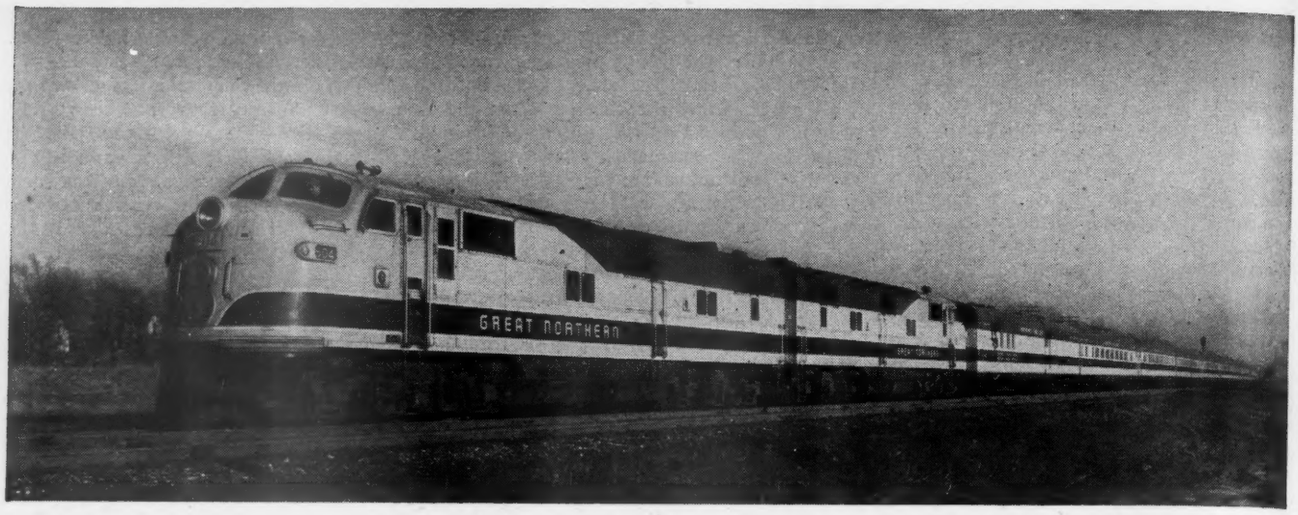
He also reproduced the bi-partisan statement whereby interested members of Congress announced last year that legislation designed to meet the President's objections to the vetoed S.1253 would be introduced in the present Congress. This statement, he said, "underwrites the President's formulation of public policy." And he noted the recent introduction of Senate Resolution 65, calling for an interstate and foreign commerce committee investigation with a view to framing the new legislation promised in the bi-partisan statement.

Fears Insurance Companies—"If legislation which would make it the duty of the court to reconsider the reorganization plan now before us is really in prospect, only the most imperative public emergency should require this court to engage in a race with the President and Congress in the disposition of questions of public policy," Justice Frankfurter next observed. He also indicated a reluctance to see control of the D. & R. G. W. pass into the hands of "the so-called insurance group in New York and its two largest lending national banks."

"The directions in which insurance companies have in the past exerted their power over the railroads of the country are not calculated to give confidence in future control by them," Mr. Frankfurter continued. "The geographical and functional remoteness of powerful financial interests in New York, in relation to a railroad system operating in Colorado and Utah, bars that single-minded attentiveness and pioneering enterpise which characterized great railroad men like Edward H. Harriman, James J. Hill and Daniel Williard."

Following the Supreme Court's action, John Evans, chairman of the road's five-man reorganization committee, announced that a board of directors and the new president will be selected and announced in the immediate future.

"The court has expressed a definite desire that, under private control, the Rio Grande should be operated independently



The new "Empire Builders" of the Great Northern and the Burlington began an exhibition tour on February 7.

* * *

in its own interest by western men and for the benefit of the West," he declared. "The reorganization committee has every intention of adhering to that policy." He said that the road emerges from its trusteeship in the finest physical condition in its history.

Reorganization plans of the Rio Grande include a merger with the Denver & Salt Lake, which has already been approved by a vote of more than 90 per cent of the latter road's bondholders.

Freight Car Loadings

Loadings of revenue freight for the week ended February 1 totaled 835,051 cars, the Association of American Railroads announced on February 6. This was an increase of 13,087 cars, or 1.6 per cent, above the previous week, an increase of 111,750 cars, or 15.4 per cent, above the corresponding week last year, and an increase of 95,495 cars, or 12.9 per cent, above the comparable 1945 week.

Loading of revenue freight for the week ended January 25 totaled 821,964 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, January 25 District	1947	1946	1945
Eastern	158,378	138,640	138,459
Allegheny	171,394	127,123	157,267
Pocahontas	66,495	57,059	55,783
Southern	136,982	123,781	123,205
Northwestern	90,119	80,005	84,944
Central Western	134,742	122,386	125,737
South Western	63,854	59,560	74,230
Total Western Districts	288,715	261,951	284,911
Total All Roads	821,964	708,554	759,625
Commodities:			
Grain and grain products	56,724	53,868	43,756
Livestock	14,031	14,970	14,608
Coal	193,294	183,470	165,449
Coke	14,042	7,445	14,392
Forest Products	45,982	35,589	40,772
Ore	12,468	6,078	11,629
Merchandise l.c.l.	117,216	116,811	96,438
Miscellaneous	368,207	290,323	372,581
January 25	821,964	708,554	759,625
January 18	828,060	749,443	777,572
January 11	830,945	772,888	783,060
January 4	687,428	652,978	683,398
December 28		627,967	505,977
Cumulative total, 4 weeks	3,168,397	2,883,863	3,003,655

In Canada.—Car loadings for the week ended January 25 totaled 70,500 cars, as compared with 71,894 cars for the previous week and 66,377 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 25, 1947	70,500	38,157
January 26, 1946	66,377	34,539
Cumulative totals for Canada:		
January 25, 1947	264,068	138,287
January 26, 1946	254,517	131,330

Seaboard Gets First Post-war Coaches from Budd

The first two post-war stainless steel coaches built by the Budd Company for the Seaboard Air Lines were delivered on February 5. Built in Budd's Red Lion plant by assembly line methods, the cars will be used in the Florida services of the Seaboard, the Pennsylvania and Richmond, Fredericksburg & Potomac.

Harbeson, Hough, Livingston & Larson, industrial designers, in cooperation with Seaboard and Budd engineers, designed the interiors of the coaches. Accommodating 52 passengers each, the coaches have individually controlled fluorescent lighting, improved air conditioning, rotating, reclining seats with adjustable footrests and public address systems. Carved lineoleum murals depicting Seminole Indians in tribal costumes are at both ends of the coaches. The murals are spotlighted.

Ski Fans Have Sleeper Service

A sleeping car from Chicago to one of several ski resorts in the Wisconsin-Michigan area is available to ski fans for week-end trips, the Chicago, Milwaukee, St. Paul & Pacific has announced. Depending upon the weather and snow conditions, the road each week chooses the best area from among such resorts as Wausau, Wis., La Crosse, Houghton, Mich., and Iron Mountain. A car to the selected resort leaves Chicago's Union station at 7:40 p.m. each Friday, returning to Chicago at 6:50 a.m. the following Monday.

Pullman Points Up "P. R."

The close tie-up between public relations and paychecks was emphasized recently in an editorial—"Here's What Puts Those Dollars in Your Paychecks"—published in the Pullman News, employees' magazine of the Pullman Company. Declaring that the "public" make possible the paychecks, while the firm's employees are responsible for the "relations," the editorial stated: "The manner in which Pullman employees deal with the public . . . their attitude toward the passengers . . . what they do and how they do it so that Pullman passengers are satisfied with Pullman service . . . in other words . . . the courtesy, consideration and attention employees show toward these passengers — that really is public relations—or if you want to call it by its other name, 'dealings with the public.' "

Club Meetings

The New England Railroad Club will meet at the Hotel Vendome, Boston, Mass., on February 11 at 6:30 p.m. J. S. Fair, Jr., purchasing agent of the Pennsylvania, will speak on "A Review of the Fundamentals of Purchasing."

A meeting of the Car Foremen's Association of Omaha, Neb., has been scheduled for February 22 at 6:30 p.m.

A general convention of the Associated Traffic Clubs of America has been scheduled for October 6, 7 and 8. It will be held in Baltimore, Md.

The Railway Business Woman's Association of Chicago will hold a dinner dance on February 15, at 6:30 p.m., in the Boulevard room of the Hotel Continental. A tea will be given at 1:30 p.m. on February 16, at the Illinois Club for Catholic Women, 820 North Michigan ave.

The Pacific Railway Club will meet at 7:30 p.m. on February 13, at the Biltmore Hotel, Los Angeles, Cal. W. H. Sagstetter, chief mechanical officer of the Denver & Rio Grande Western, will speak on "Apprentice and Supervisory Training."

The Canadian Railway Club will hold a meeting on February 17 at the Mount Royal

hotel, Montreal, at 8 p. m. Douglas Walkington, chemical division of Canadian Industries, Ltd., will describe "This Chemical Age."

The Car Department Association of St. Louis will meet on February 18 at the Hotel De Soto, St. Louis, Mo., at 8 p. m. for a discussion of changes in A. A. R. rules.

A symposium on "Suspension Requirements of Unsprung Parts" will comprise the program when the Metropolitan section of the Society of Automotive Engineers meets at the Hotel Pennsylvania, New York, on February 20 at 7:45 p. m. Roy W. Brown, Firestone Tire & Rubber Co., will act as moderator and will be joined by A. S. Krotz, chief engineer, suspensions, B. F. Goodrich Company, and Robert Schilling, General Motors Corporation.

The annual meeting of the American Railway Development Association will be held at the Hotel Adolphus, Dallas, Texas, March 10-12, inclusive.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago 80, Ill.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis 1, Mo. Annual meeting, October 8-10, 1947, Houston, Tex.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise LaChance, Room 901, 431 Dearborn St., Chicago 5, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, 1103 Cleveland St., Evanston, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 16-18, 1947, Hotel Stevens, Chicago.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—W. J. Walsh, B. & O. R. R., Baltimore 1, Md. Annual meeting, March 10-12, 1947, Hotel Adolphus, Dallas, Tex.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Clifford G. Massoth, Illinois Central Magazine, 135 E. 11th Pl., Chicago 5, Ill.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. P. Nye, Tower Bldg., Washington 5, D. C.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, Asst. Secretary, 1916 Race St., Philadelphia 3, Pa. Annual meeting, June 16-20, 1947, Chalfonte-Haddon Hall, Atlantic City, N. J.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18, N. Y.
Railroad Division.—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.

AMERICAN TRANSIT ASSOCIATION.—A. W. Baker, 292 Madison Ave., New York 17, N. Y.

AMERICAN WOOD-PRESERVERS' ASSOCIATION.—H. L. Dawson 1427 Eye St., N. W., Washington 5, D. C. Annual meeting, April 22-24, 1947, Multnomah Hotel, Portland, Ore.

ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O. Annual meeting, October 6-8, 1947, Lord Baltimore Hotel, Baltimore, Md.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—H. S. Whited, 5th & T Sts., N. E., Washington 2, D. C.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington 6, D. C.
Operations and Maintenance Department.—Transportation Bldg., Washington 6, D. C.
Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.
Communications Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y.
Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y.
Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Safety Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.
Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y. Annual meeting, September 11-13, 1947, Edgewater Beach Hotel, Chicago, Ill.
Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 23-28, 1947, Convention Hall, Atlantic City, N. J.
Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill.
Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C. Annual meeting, June 23-28, 1947, Convention Hall, Atlantic City, N. J.
Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, April 15-17, 1947, Hotel Statler, St. Louis, Mo.
Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington 6, D. C.
Car Service Division.—E. W. Coughlin, (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.
Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.
Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago 7, Ill. Annual meeting, May 7-9, 1947, Hotel Ambassador, Atlantic City, N. J.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—E. C. Gunther, Duff-Norton Mfg. Co., 122 S. Michigan Ave., Chicago 3, Ill. Exhibit in conjunction with American Railway Bridge and Building Association Convention, September 15-18, Hotel Stevens, Chicago, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal 28, Que. Regular meetings second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis 3, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—W. E. Angier, chief A. A. R. clerk, C. B. & Q. R. R., 547 W. Jackson Blvd., Chicago 6, Ill. Regular meetings, second Monday of each month, except June, July and August.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

CHICAGO LUNCHEON CLUB OF MILITARY RAILWAY SERVICE VETERANS.—Col. R. O. Jensen, Schiller Park, Ill. Luncheon, second Wednesday of each month, Chicago Traffic Club, Palmer House, Chicago, Ill.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y. Annual meeting September 15-18, 1947, Hotel Sherman, Chicago, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington 25, D. C. Annual meeting, July 14-18, 1947, Boston, Mass.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—F. J. Armstrong, U. S. Radiator Company, Detroit, Mich.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill. Meeting and exhibit in conjunction with American Railway Engineering Association Convention, March 17-20, 1947, The Coliseum, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston 11, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION.—E. N. Myers, Minnesota Transfer Ry., 1434 Iowa Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 458, San Rafael, Cal. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Calif.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Illinois.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill. Annual meeting, September 15-18, 1947, Hotel Sherman, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—A. W. Brown, Room 1424, 30 Church St., New York 7, N. Y. Exhibit in conjunction with meetings of A. A. R. Mechanical Division and Purchases and Stores Division, June 23-28, 1947, Convention Hall, Atlantic City, N. J.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section, of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis, Mo. Annual meeting, September 23-25, 1947, Arlington Hotel, Hot Springs, Ark.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 16-18, 1947, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill. Exhibit in conjunction with Roadmasters' and Maintenance of Way Association Convention, September 15-18, 1947, Hotel Stevens, Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 225 Bidwell Ave., Westerleigh, Staten Island 2, N. Y.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

A list of current publications may be found on page 349.

With the Government Agencies

Felton, Johnson, I.C.C. Heard in Car Inquiry

All stress necessity for more building if shortage is to be eliminated

Testimony by S. M. Felton, president of the American Railway Car Institute, and Colonel J. Monroe Johnson, director of the Office of Defense Transportation, marked the continuation this week of hearings before a subcommittee of the Senate committee on interstate and foreign commerce on Senate Resolution 47, calling for an inquiry into the box car shortage. The resolution was introduced by Senator Reed, Republican of Kansas, who is chairman of the subcommittee.

Capacity 14,000 Cars a Month—According to Mr. Felton, the "only possible solution" is to make more materials, principally steel, pig iron and lumber, available promptly for the construction of new cars and for the repair of those now in service. He said that the car building industry, exclusive of the railroad shops, has a capacity of 14,000 cars a month; that during 1946, the car builders were able to deliver 31,885 freight cars to the railroads, and that as of February 1, incomplete figures indicated that 54,600 cars were on order with car builders and 21,000 on order in railroad shops.

"As for export orders," he continued, "I can assure you that they have been an impetus rather than a retarding factor to domestic production by permitting our car building companies to begin their reconversion processes before orders in bulk began to come from American railroads. As of January 1, 1946, orders for 32,271 domestic freight cars were on our books, and orders of 8,350 cars for export to Mexico and South American countries. Had we been able to obtain materials and operate at full capacity, this would have represented less than three months' operation of all plants in our industry upon which to base reconversion.

"It was at this juncture that we received an order for 36,750 freight cars for the rehabilitation of France, endorsed by the War and State Departments. With so few domestic orders on the books, this permitted the car builders to begin opening idle plants, rehiring employees, and . . . get back into peace-time business. In connection with these French cars, let me point out that they are only one-half the size of our domestic cars, and require, therefore, just about one-half as much material."

Mr. Felton said that of the 54,600 domestic cars on order on February 1, 32,800 were ordered during the last six months of 1946 and 8,300 in January.

Steel Still Short—Explaining that there is an "inescapable lag" of sometimes five months between the time an order is placed and the time a car can come from the production line, Mr. Felton added that it is "almost impossible" today for a car builder to place an order with a steel company and obtain a firm delivery date. He said the same condition also applies to the delivery of specialties and components which go into freight car construction.

Contending that the railroads could use the 160,000 cars per year that the car building industry is capable of producing, Mr. Felton pointed out that the builders received only 48,000 tons of steel monthly during 1946, as compared to the 179,000 tons needed to produce 10,000 cars monthly.

Mr. Felton also asserted that the Interstate Commerce Commission "dillied and dallied" with a freight rate increase while the railroads were running "deeper and deeper" in the red. He said that the I. C. C. left the railroads "living on their fat," noting further that "it is quite apparent . . . that a good business man doesn't go splurging, even on needed equipment, while he is losing money."

(*Continued on page 332*)

Adequacy of Car Purchases Brought into Inquiry

The Interstate Commerce Commission has broadened its No. 29699 investigation of railroad practices with respect to freight car service to cover the question whether the railroads "have been and are providing themselves with safe and adequate plain, ventilated, and automobile box cars, refrigerator cars, ordinary gondola, flat and hopper cars including covered hopper cars for performing as common carriers their car service." The broadening came in an amended order covering the investigation, which was dated February 3.

The new order also added the foregoing to the statement of the inquiry's purpose which will now include consideration of orders requiring railroads "to provide themselves with safe and adequate freight cars . . . if it be found necessary in order to enable such carriers to furnish safe and adequate car service." No change was made in the date for hearings, which will open on March 18 in Washington, D. C., before Examiner Claude A. Rice.

Would O.K. Railroad Plan to Buy Pullman

Examiners tell I. C. C. to approve pooling arrangements involved in proposal

Examiners Howard Hosmer and O. G. Barber have recommended in a proposed report that the Interstate Commerce Commission approve and authorize the pooling arrangements involved in transactions whereby the so-called "buying group" of 56 railroads propose to acquire the Pullman Company's sleeping-car business. Specific commission findings recommended in the proposed report are that all applicants have assented to the proposed pooling; that it will be in the interest of better service to the public and of economy in operation; that it will not restrain competition; and that the consideration for the proposed pooling will be just and reasonable.

Meanwhile, the examiners further advised the commission that it should deny motions to dismiss the buying group's application, which were filed by interveners —the Department of Justice, Otis & Co., and the Chesapeake & Ohio, Pere Marquette and New York, Chicago & St. Louis. While these three roads are opposed to the application, the examiners noted that their names appear on the list of applicants, because they wish to become parties to the plan if it is approved.

Five Non-Participants—"For reasons not clearly disclosed," as the proposed report put it, five roads which provide sleeping-car service "did not see fit to participate." They are the Central of New Jersey; Chicago, Indianapolis & Louisville; St. Louis Southwestern; Tennessee Central; and Detroit & Mackinac. The Canadian roads and their subsidiaries in the United States and the National of Mexico were not invited to join in the plan.

The proceeding out of which the proposed report has come is docketed as No. 29592. The application is the outgrowth of the government's successful anti-trust suit against the Pullman companies and Pullman, Inc.'s election to comply with the court ruling by selling its stock in the Pullman Company while retaining the Pullman-Standard Car Manufacturing Company. Sale to the railroad buying group was approved by the special three-judge federal court sitting at Philadelphia, Pa., which heard the anti-trust complaint; and the Department of Justice and the C. & O., P. M. and Nickel Plate have appealed that court's decision to the Su-

preme Court. The Pullman Company has continued to operate under an order of the Philadelphia court which provides for such operation pending the Supreme Court's action.

The acquisition agreements between the buying group and Pullman, Inc., provided that the former would buy from the latter all capital stock of the Pullman Company at a price which would reflect the value of property and assets remaining after various individual roads had purchased Pullman lightweight cars assigned to their lines. The lattter has been done, these sales of lightweight cars having brought Pullman a total of $34,697,009. The valuation agreed upon for the remaining property, which becomes the price to be paid for Pullman Company stock, is $40,202,482, including approximately $20,200,000 for "heavyweight standard" cars, $2,500,000 in working capital to be provided, $12,500,000 for inventories of materials and supplies, and $4,775,000 for miscellaneous property, consisting principally of repair shops.

Old Cars Unwanted—With respect to that part of the proposed price which would cover the heavyweight cars, the examiners noted that a complication arose because of the reluctance on the part of many railroads to acquire such cars either directly or through their participation in the acquisition of the Pullman Company stock. To meet this problem a plan was devised under which the Pullman Company would issue to Pullman, Inc., interest-bearing, non-negotiable notes, due not later than December 31, 1948, in a total amount equal to the present value of the heavyweight cars. The principal of these notes would be payable either by surrendering the cars themselves or in cash.

In the meantime, any railroad, whether a member of the buying group or not, would be permitted to purchase any heavyweight car regularly assigned to it at a stipulated price; and the Pullman Company could sell unassigned cars to the railroads to the extent that it had no need for such cars. Any road which purchased such cars would be required to lease them to Pullman for operation during the so-called interim period. Within that period, which would end not later than December 31, 1948, the buying group, as the proposed report pointed out, intends "to reduce Pullman into, or sell its properties to, a sleeping-car service corporation."

Before getting into its consideration of the merits of the buying group's application, the proposed report disposed of intervenors' contentions to the effect that the application should be dismissed as one improperly filed because the proposed transaction would be an acquisition of control subject to section 5(2), and not a pooling arrangement subject to section 5(1) on which the applicants rely. In rejecting such contentions, the examiners found that the proposed new set up would be "in a general way" like the relations between the railroads and the Railway Express Agency, which the commission "has recognized as a pooling agreement."

Approval of Whole Transaction—With respect to the intervenors' concern over the possibility that the commission might make some finding which directly or indirectly would purport to approve applicants' acquisition of Pullman stock, the examiners did not believe that the commission could let such considerations circumscribe its administration of section 5(1). Moreover, they found merit in citations made by the applicants to support their contention that approval of the pooling "will necessarily carry with it approval of all essential parts of the transaction, including the stock acquisition."

There the proposed report left this stock-acquisition question as one which required no extended discussion, because it is a matter of law "as to which the commission's opinion would not be final." And the emphasis which the interveners placed on it prompted Messrs. Hosmer and Barber to add that "they perhaps look forward to further litigation on this point even though the district court's decision approving the sale of the Pullman stock to the railroads is affirmed."

As to the Department of Justice's suggestion that commission approval of the present application might mislead the buying group into believing that it could consummate the whole transaction without awaiting the Supreme Court's determination of the pending appeals, the examiners observed that the commission's "fostering guardianship" over the railroads has never been understood as including any responsibility for protecting them "against unsound advice on the part of their law departments." Their final comment on the "dilatory contentions" was that if the district court's order approving the sale to the buying group is affirmed, "valuable time will have been saved by the commission's action in disposing of this application without awaiting the Supreme Court's decision."

Alternatives Less Desirable—Coming thus to the merits of the application, the proposed report measured the proposal first from the standpoint of service to the public and economy in operation. Alternatives to the proposal of the buying group were found to be ownership and operation of their own sleeping cars by the individual railroads; operation of a sleeping-car service business by more than one company as competitors; and continuation of Pullman's operations under the ownership and management of promoters represented by Otis & Co. The Department of Justice was the only one favoring either individual operation and ownership or two or more competing companies. The chairman of the C. & O. board (Robert R. Young) was quoted as having testified that the former would be "the worst possible way . . . the most inefficient and most uneconomical"; and that he had "met with no encouragement" in an endeavor to organize a company to compete with Pullman.

"It may safely be concluded," the proposed report continued, "that the financial hazards involved in such an undertaking are insuperable at the present time and that furthermore the participation of more than one company . . . would not be in the interest of better service to the public or of economy in operation." This latter conclusion "is based on the evidence of both the applicants and the intervening railroads."

As to the latter's contention that the advantages of unified operation would be impaired by the buying group's ownership of Pullman stock, the examiners stated that the Otis & Co. proposal would not leave the sleeping-car business "completely independent" of railroad interest. They cited evidence indicating that the relationship between Otis & Co. and the intervening railroads "is very close"; and these same interests "also hold what are described as sizable blocks of stock in a number of other railroads."

Small Roads' Position—With respect to the intervenors' fears for "the smaller railroads," the proposed report pointed out that Pullman would have only about 50 stockholders, and would be "a comparatively small corporation not similar to certain other corporations referred to in this record in which a considerable degree of control can be based on minority holdings of stock in a strategic position." Also, reference was made to that part of the court decision which invited complaints if "any one of the partners to the cooperative enterprise start to play fast and loose with one of its associates"; and to the proposed plan for electing Pullman's 15 directors—six at large and nine by regions. Under the proposed plan for the allocation of Pullman stock, the Pennsylvania and New York Central would own approximately 32 per cent of the total, and the next largest share would be the Southern Pacific's 8.55 per cent (see *Railway Age* of August 3, 1946, page 194).

Dealing with testimony of C. & O. officers who left a "strong implication" that replacement of heavyweight cars by the buying group would be "purposely" slow, the examiners found other evidence which detracted from the force of such implication. They cited the interest railroads have shown since 1935 in lightweight cars; the promptness with which they exercised their right to buy Pullman's lightweight sleeping cars; and the unwillingness to pay cash for the heavyweight cars which resulted in the "cash-or-car" notes mentioned above.

Plenty of Competition—On the matter of competition, Messrs. Hosmer and Barber noted that rivalry among railroads for passenger traffic "has always been keen and dramatic," and they recalled how the commission has in the past pointed out that one of the causes of railroad financial ills was competition for passenger traffic. "The Department of Justice," they added, "has introduced no evidence which even remotely tends to show that transportation competition among applicants or between any two of them will be restrained if earnings are pooled in accordance with the plan here proposed. Nor was any such evidence offered by the intervening railroads."

Noting that interlocking directorates between Pullman, Inc., and the vendee railroads had been eliminated in accordance with the Philadelphia court's order, the examiners dealt with intervenors' contentions that there remained "interlocking holdings of stock." In that connection, they found "no evidence" which supports any suspicion that such relationships "redound to an unfair or unlawful advantage of

Pullman-Standard in securing orders for cars."

In their discussion of the "public interest" the examiners mentioned assertions made by the Department of Justice and the intervening railroads to the effect that the proposed transactions lacked a plan for taking care of Pullman employees. "Such charges," they said, "seem to be calculated to inspire unrest among the Pullman employees, for which there is no justification." The buying group had given assurances on this matter, they went on, adding that "since no change in Pullman's corporate entity or its present mode of operation is proposed, it is impossible to see how the employees would be harmed if the proposed pooling is approved."

In closing, the proposed report set up Otis & Co.'s statement of its claim, but suggested that the commission may not find it necessary to pass upon the merits of that proposal. If it does, the examiners advised that the evidence thus far of record "provides no factual support for the claimed superiority of that offer from the standpoint of public interest."

Felton, Johnson, I. C. C. Heard in Car Inquiry

(Continued from page 330)

"The railroads need cars," he concluded. "The farmers and industry—and the consumers—need freight transportation. Production capacity is available. We all together need materials, including steel, pig iron and lumber. Until those are forthcoming, there is no magic wand theory that will put new freight cars on the tracks in the quantity needed."

More Steel Promised—Colonel Johnson, a member of the I. C. C.'s Division 3 and in direct charge of the commission's Bureau of Service which administers the car service provisions of the Interstate Commerce Act, told Senator Reed that in view of the fact the number of empty cars moving westward daily was steadily increasing the subcommittee chairman does not have a "serious complaint" at the present time. He said that he has been reassured by the American Iron & Steel Institute that the industry will provide enough steel for the construction of 10,000 freight cars monthly. He added that the railroads are awaiting the completion of a "survey" by the Association of American Railroads as to how many cars each road should order.

At the same time, however, he said that the lack of cars is "more acute" now than it has been in the past six or seven years and that the car situation has "alarmingly deteriorated" instead of improving. "Unless heroic measures are taken at once to put new cars on our railroad tracks," he continued, "this nation will be further slowed in its commercial and economic activities to an even greater extent than has already occurred."

"Planners" Censured—Sharply criticising the Civilian Production Administration and the War Production Board for their failure to expedite the allocation of steel and other components for increased freight car production, Colonel Johnson said that the box car shortage cannot be lessened except by the construction of 100,000 new box cars "unless the United States slows down and diminishes its production."

With respect to a view expressed by Senator Reed that the I. C. C. must "step in and relieve in the box car situation" in the form of service orders, Colonel Johnson said that the railroads "don't like to be bothered with commission service orders." "There's only one cure to prevent the situation from growing worse," he added, "and that's more cars."

Colonel Johnson also criticized the "sudden" discontinuance of a plan wherein the Reconstruction Finance Corporation would have financed the construction of 50,000 new cars. Noting that the proposal had been accepted by the A. A. R., he commented that "no more beneficial thing could have happened not only to transportation but to the United States itself." "In my opinion," he said, "nothing is of more importance to the United States than a replenishment of its railroad equipment."

Referring to per diem rates, Colonel Johnson said that the present $1.15 levy is a "ridiculous figure during this great scarcity." "I have recommended," he concluded, "and the commission is now investigating (and I hope this subcommittee will recommend), leglislation to Congress that will make the cost to a railroad per day of a foreign car adjustable and subject to the emergency powers of the commission just as demurrage now it. . . . If the per diem charge for freight cars to the using roads were adjustable in emergencies just as are the demurrage rates and the commission were to raise the per diem charge to only $2 a day now, in my opinion it would in effect add 40,000 to 50,000 cars immediately.

"There is no reason . . . why you can charge for sluggishness in the handling of freight cars in the hands of a shipper or receiver and you cannot charge the railroad with sluggishness, but I am advised by experienced legal talent that the emergency powers of the commission do not extend to per diem charges."

Commission's Defense—Three other members of the commission—Chairman Aitchison and Commissioners Splawn and Miller—had preceded Colonel Johnson, giving their views at the January 30 session of the hearings.

As chairman of the I. C. C.'s legislative committee, Commissioner Splawn presented a 16-page prepared statement in which he reviewed the activities of the Bureau of Service from 1941 through 1946. With respect to the latter year, he said that "in order to facilitate the flow of traffic and prevent car shortages," the Bureau of Service issued 356 orders and 185 general and special permits between October 1, 1945, and September 30, 1946.

"The field force made investigations of conditions and records at 9,231 railroad stations and yards, interviewing 7,938 officers of industries and 28,172 railroad officials," he continued. "Reports on car detention numbering 8,375 were submitted. From October 1, 1945, to September 30, 1946, inclusive, 837 embargoes were placed by the Association of American Railroads at our own request, and 512 were placed by the individual railroads to prevent delays. Our agents made concentrated efforts to prevent circuitous routing, misuse of railroad equipment, back-hauling and cross-hauling of cars and congestion at terminals and ports. Special efforts were made to prevent improper loading of cars, to expedite car repairs and to secure the prompt return of cars from Mexico, Canada and Cuba."

According to Commissioner Splawn, the bureau's agents frequently were shifted from their regular duties to act as permit agents and assist in the administration and enforcement of service orders. He said that during 1946, 10 agents were so assigned in connection with service orders pertaining to grain and three were in charge of the distribution of refrigerator cars in Washington, California and Texas. He added that "measures were taken" to avoid unnecessary weighing of cars and delays incident to diversion and reconsignment, noting further that traffic was diverted or rerouted "from time to time" on account of terminal congestion and other transportation disabilities.

Plead "Overwork"—Chairman Aitchison stated that the I. C. C. was overburdened with work, a situation which he said has resulted in part from the death last summer of Commissioner Porter and the absence of Commissioner Barnard because of illness. He said that the I. C. C.'s Division 3 has full authority with respect to car service problems and that Colonel Johnson would therefore be the best-informed spokesman on car service matters.

Senator Reed's continuous criticism of the I. C. C.'s operating structure and practices with respect to car service orders led Chairman Aitchison to remark that "we stand here virtually under an impeachment proceeding."

"That's a pretty strong term," Senator Reed replied, "but not too strong in view of what has happened."

After explaining how the I. C. C. divides its work among its various divisions, Chairman Aitchison said that the commission has been conscious of the shortage of box cars since before the war and that the I. C. C. always has been "thoroughly diligent" in its handling of car service matters. He said that it was the I. C. C.'s responsibility to use its "best sound judgment" in the allotment of its work to its divisions, adding that it is impossible for eleven men to handle all of that agency's problems.

Grain Not Only Traffic—Again directing his remarks toward Senator Reed, Chairman Aitchison said that the subcommittee chairman should realize that "grain is not the only commodity" which is shipped by rail. He said that the commission has received as many complaints from eastern shippers as it has from western shippers with respect to the shortage of cars and that "if Senator Reed isn't bringing the box car situation to our attention, someone else is." He said that the only "adequate

way" in which the I. C. C. could handle the car service problem was to delegate the work to one of its divisions.

Commissioner Miller said that Senator Reed's probe would be "worth while" only if it results in the construction of new box cars. At the same time, however, he said that reports from steel manufacturers indicated that the allotment for the manufacture of box cars probably would be less than it has in the past.

Declaring that he was given insufficient time to prepare a statement covering the activities of Division 3 and the Bureau of Service, Commissioner Miller said that the commission has "done its best" to alleviate the shortage through the issuance of service orders. He said that he was aware of the comparatively small number of empty cars moving westward. With respect to the statement of Walter R. Scott, executive vice-president of the Board of Trade of Kansas City, Mo., as reported in *Railway Age,* February 1, page 278, Commissioner Miller observed that while it was a "good statement of facts," he did not agree with its conclusions.

Reed Is Caustic—Asserting that he has "long defended" the I. C. C., but that he is now its "severest critic," Senator Reed asked the commission representatives to submit to the subcommittee a list of service orders issued since August 1, 1946, directed toward correcting the "glaring" box car situation.

"I'm doubtful of the commission," he stated, "and I hope the railroads can supply better information. I believe the commission is entirely unconscious . . . of the dislocation problem." Senator Reed also charged that the railroads and/or the I. C. C. were discriminating against the West; that the commission pays little, if any, heed to car service order violations; that the northeastern railroads, with the exception of the Pennsylvania, were the most "notorious" violators of the car service rules and that the status of the western grain elevators was indicative of the box car shortage. "I'm getting more complaints now than ever before from Kansas shippers," he said.

According to Senator Reed, the western roads should be given a "fair share" of the existing equipment "and no more." Declaring that the cars were not being equitably assigned he said he intends to "keep the heat on until we get what we need."

Meanwhile, shippers of other commodities had told the committee that their respective territories also are affected by the box car shortage. They described their shortages as being as great as, if not greater than those of the grain shippers.

Charles Donley, of Pittsburgh, Pa., representing steel, pottery and other industries, asserted that the box car situation is "worse now" than it was during the war period and criticized the slow movement of cars, particularly those carrying l.c.l. freight. He said that the industries which he represented were approximately 30 per cent short of the box cars needed to meet their demands, although Senator Reed said he thought that figure should be "about 14 per cent."

Turning to Trucks—According to Mr. Donley, the absence of box cars recently at certain points in Ohio, West Virginia and Pennsylvania made it necessary for shippers to forward their products to the Pittsburgh "gathering point" by truck, which, he said, involved extra costs. He said he believed that the railroads are "alert and anxious" to render service but that "there just aren't any cars." He stated that the construction of new cars was the "only solution" to the problem and advocated that the authority to direct the distribution of box cars be taken away from the government and placed in the hands of the railroads and shippers.

I. M. Herndon, manager of the Transportation department of the Chicago Board of Trade, complained of switching service delays in the Chicago area, adding that an average of 4½ days elapses from the time the cars are ordered to placing for loading. W. H. Day, manager transportation of the Boston, Mass., Chamber of Commerce and general chairman of the New England Shippers' Advisory Board, said that most of the cars received by New England shippers were in need of repairs. He said that the situation was worse in Maine than in any other section of New England, adding that one paper mill received only 27 of the 200 empty cars it recently ordered. He said that many mills in Maine were being forced to shut down because of their inability to obtain empty box cars.

Cars in Bad Order—A. W. Evans,

Neff Tells Steel Heads Railroads Must Have Freight Cars, if Prosperity Is to Ride

Arguing that the freight car situation is so "grim" that it warrants a reversal of the apparent present policy of the steel companies "of letting the railroads wait," P. J. Neff, chief executive officer of the Missouri Pacific, has addressed a letter to the heads of the principal steel producing companies of the country calling their attention to the fact that to supply other industries with steel and not allot the carriers and car builders a sufficient quantity to meet their requirements is a case "of putting the cart before the horse." "Every industry in the country," declared Mr. Neff, "will eventually suffer, if there are not enough cars with which to move the nation's commerce."

The complete text of the letter sent by the M. P.'s president, dated February 4, read as follows:

"I am addressing this letter to the principal steel producing companies of the country to solicit their careful consideration of a critical situation.

"It is common knowledge that the railroad industry received very little steel for the repair and manufacture of cars during the recent war and that, when the war terminated, there was an enormous backlog of steel required both to repair deteriorated equipment and build new cars for the needs of the country.

"For reasons perhaps known to your industry but unknown to us, it has been impossible for this company to purchase any appreciable percentage of its requirements for the purposes indicated, and we have received letters from fourteen of the principal steel manufacturers of the country within the past ten days—all to the effect that they cannot furnish us during 1947 any appreciable part of steel for our repair and replacement program.

"Box cars are being retired at the rate of 40,000 per year in excess of the number being built, and cars that could be repaired and made serviceable to move wheat, flour and other commodities requiring high class cars are not being made available because of the lack of steel to repair them.

"There remains an insufficiency of box cars to move the old wheat crop from interior elevators and more than one-half of last year's wheat crop has not been moved. Unless immediate steps are taken to give the railroad industry its requirements, the wheat farmers face a catastrophe in 1947.

"The nation's prosperity rides in freight cars and if it be your policy, or at least your practice, to supply other industries with steel and not allot the railroads and their car builders a sufficient supply to meet their requirements, it would seem to be a case of putting the cart before the horse. Every industry in the country will eventually suffer if there are not enough cars with which to move the nation's commerce at the proper time.

"There seems to be no point in factories running at full production if there are not enough freight cars to haul the finished products away from the factories, nor any sense in raising big crops to relieve hungry Europe if the products are to spoil on the farms in the United States. The nation's crying need is for full-scale production, but that cannot be achieved nor maintained so long as an acute freight car shortage exists. Therefore, steel for repair parts and new freight cars should, I believe, be given equal consideration with the requirements of every other industry.

"It seems to me that the steel companies must attack this as an industry problem. The Missouri Pacific is attempting to do its part by the construction of a large car building and repair plant in order to increase its car supply, but this investment will serve no good purpose unless we can buy the steel with which to build or repair our cars. Car manufacturers now have orders from us for 3,000 new cars, but they advise us that definite delivery dates are impossible until they are assured of the necessary steel. The situation is serious and getting grimmer every day and it seems to me to be of sufficient general importance to the steel industry to warrant a prompt reversal of its apparent present policy of letting the railroads wait."

general chairman of the Southeastern Shippers' Advisory Board, told the committee that 90 per cent of the cars received for the shipment of sugar were unfit for use. He said that box car shortage also was affecting other industries in the South, including clay and clay products, fertilizer and phosphate. Representative K. E. Mundt, Republican of South Dakota, asserted that "the corn harvest will be lost" unless more cars are diverted to the corn producing areas within the next 30 days.

Fred S. Keiser, associated director of the O. D. T.'s railway department in Chicago, urged the delivery of 1,200 empty box cars to Chicago daily and the abolishment of priority orders on cars, which, he said, slow the movement of traffic and disturb the transportation equilibrium. He said that the Car Service Division of the Association of American Railroads was "doing the best it can" to ease the situation and that the eastern roads cannot be blamed for using cars shipped from the West to meet their own demands.

J. J. Mahoney, general superintendent of transportation of the Atchison, Topeka & Santa Fe, summarized the opinion of other railroad officers—including F. E. Sperry, general superintendent of transportation of the Chicago, Burlington & Quincy; J. L. Brown, general superintendent of transportation of the Chicago, Milwaukee, St. Paul & Pacific; and C. W. Pace, general superintendent of transportation of the Missouri Pacific—when he told the committee that the distribution of freight cars would be more equitable if there were no service orders or priorities.

Meanwhile, Senator Wherry, Republican of Nebraska, has introduced in the Senate a bill (S. 446) to make mandatory instead of discretionary the Interstate Commerce Act's section 1(14)(a) which provides the I. C. C. with its powers to establish car-service rules and regulations. Where it is now provided that the commission "may" establish such rules, the proposed Wherry amendment would stipulate that it "shall" do so. When he introduced the bill, the Nebraskan issued a statement saying "it is obvious that additional regulation is required to compel fair distribution of box cars." He also suggested that "one of the simplest measures available" could be found by the commission in its "power" to fix the per diem rate, which "could easily be raised" from the present $1.15 per car per day "to whatever sum is necessary to make it financially advisable for railroads to hasten the return of cars to their original owners."

More Money for Mediation and Adjustment Boards

President Truman has submitted to Congress a supplemental budget estimate asking for the appropriation of an additional $82,300 for the National Mediation Board and National Railroad Adjustment Board for the current fiscal year ending next June 30. Previous fiscal 1947 appropriations for those boards have totaled $711,200.

In submitting his request to Congress, the President sent along the usual statement by Director James E. Webb of the Bureau of the Budget which indicated that N. M. B. would get $60,800 of the proposed new appropriation while $21,500 would go to the Adjustment Board. N. M. B. needs the money, Mr. Webb explained, "because employee-carrier disputes in the railroad and airway transportation industries have required the creation of a greater number of arbitration and emergency boards than had been anticipated." The Adjustment Board needs the additional money to pay the higher rates specified in a new printing agreement negotiated after its printer defaulted on his previous contract "due to conditions beyond the control" of the board.

Notice of Rate Increases; No More Interventions

The Office of Temporary Controls, which inherited the remnants of war agencies being liquidated, will not intervene in railroad rate cases after the manner of the former Office of Price Administration, although notice of proposed general increases must be given to O. T. C. under still-effective provisions of the Stabilization Act of 1942. Arrangements for future handling of the required notices from common carriers and public utilities were set up by O. T. C. Administrator Philip B. Flemming in a January 27 order.

The order designates the Commissioner for War Mobilization and Reconversion in O. T. C. as the agency to receive the notices, and then adds: "Because it is considered unnecessary, under present circumstances, to intervene before the authorities having jurisdiction to consider such proposed increases, the commissioner will not so intervene."

Agreement on Switching for Car Ferry Lines at Manitowoc

Acting upon petitions wherein the parties reported that they had reached an agreement "substantially in compliance" with its July 26, 1945, order in No. 29030 and the related No. 29045, Division 2 of the Interstate Commerce Commission has vacated that order which related to compensation received by the Chicago & North Western for terminal facilities and switching services provided at Manitowoc, Wis., in connection with the car-ferry operations of the Pere Marquette and Ann Arbor. The vacation of the order is "without prejudice to the right of any party to these proceedings to petition for reinstatement."

As noted in the *Railway Age* of August 18, 1945, page 314, the proceedings grew out of a complaint filed by the C. & N. W. which protested that it was receiving inadequate compensation under unpublished arrangements for use of its Manitowoc facilities and switching services performed there for the car-ferry lines. Among other things, this complainant asked the commission to require the ferry roads to establish joint rates with it on all traffic to and from Manitowoc; but the ferry roads filed a cross-complaint asserting that the failure of the C. & N. W. to publish switching charges applicable in connection with their operations was unreasonable, and that the North Western's joint-rate proposal was an attempt to eliminate them as originating carriers at Manitowoc.

The commission rejected the joint-rate proposal, and its order required the use of the C. & N. W. terminal facilities by the ferry lines on the basis of charges published in tariffs, which charges the commission said it would prescribe, after hearing, if the parties did not reach some such agreement as that which brought the vacation order.

Makes Public Connors' 1945 Report on Adjustment Board

The National Mediation Board last week made public the report which E. J. Connors, vice-president of the Union Pacific, made to President Truman on August 31, 1945, following his investigation of conditions on the First division of the National Railroad Adjustment Board. Mr. Connors got his original assignment to make the investigation from the late President Roosevelt, but the letter with which he transmitted the report to the White House revealed that President Truman later broadened the inquiry "to include an effort of solution by cooperative effort of the railroads and the rail unions."

The report was released by Robert F. Cole, secretary of the Mediation Board, who made it available by "direction" of the board. In a brief accompanying statement, dated January 21, Mr. Cole said: "The following report has been referred to this office by the White House and is herewith reproduced for general information."

Would Cut Down Cases—From time to time throughout the report Mr. Connors emphasized his view that the best way to relieve the First division's docket and set the division up to dispose of cases without long delay is to cut down the number of cases referred to the board. "With the elimination of trivial and unimportant, disputes, particularly those arising out of local rules, the adoption of prior awards in proper cases, the discontinuance of the effort to seek advantage of awards to repudiate agreements and established practices," he said, "the First division can promptly dispose of the normal volume of disputes. This contemplates appropriate paneling of the members for hearing and recommendations for adoption of awards by the full division."

Also Mr. Connors favored a limit on the time within which disputes could be brought before the board, but he did not think it appropriate to consider the railroads' demand for court review of board decisions, this being "a matter for the consideration of Congress." While referees have participated in 35 per cent of the awards made by the First division, the report called attention to the fact that the Third division has used referees on 63 per cent of its awards. Mr. Connors would improve the referee situation by setting up a permanent panel of referees and paying them "sufficient salary to attract men of qualifications and aptitude for continuous service and participation with the railroad and labor members in hearing and deciding cases."

Meanwhile he had been critical of the refusal of the board's labor members to agree on a change in the rule providing that a party against which a claim is filed will be denied access to the statement of claim and contention until it files its response. He noted that approximately 80

per cent of the cases are filed *ex parte* by the employees, and called the rule "indefensible procedure." He also pointed out, however, that the carrier members concurred in the rule originally, and added that criticism of it "must be tempered with the knowledge that it was adopted to encourage joint submissions." However, joint submissions "are too often a recital of the contentions of the respective parties with so many conflicting and confusing statements they are merely an *ex parte* submission and response in one document."

Policy on Discipline—Discussing disciplinary actions appealed to the board, Mr. Connors said that the employees are sustained in 69 per cent of such appeals. "If the disciplinary action was justified," he went on, "this presents a situation vitally serious to public safety, detrimental to efficient management, and destructive of morale, but the fact that 46 per cent of the awards reversing disciplinary action of the carriers were made with the concurrence of the railroad members and without a referee suggests that railroad management should first review the discipline policy or the propriety of the railroad members' action."

Earlier in the report Mr. Connors had pointed up the fact that the majority of the cases presented to the First division are from a "relatively few" railroads; and this indicated to him that "the obligation of conference settlement is generally adhered to." More specifically, he said that the number of awards rendered on three western roads with an aggregate of only 6,388 train and engine service employees exceeded the total number of awards rendered on all of the southeastern roads, employing more than 50,000 men of these classes. The number of awards on three western roads employing a total of only 6,900 train and engine service employees exceeded the total number of awards on all eastern roads with a total of more than 140,000 employees of these classes. Only a "negligible number of awards were rendered on the two largest railroads in the country."

As to organizations, 40 per cent of the cases came from the Brotherhood of Railroad Trainmen, 13 per cent from the Order of Railway Conductors, 16 per cent from the Brotherhood of Locomotive Firemen & Enginemen, and 10 per cent from the Brotherhood of Locomotive Engineers. Most of the remaining 21 per cent of the cases were submitted by the brotherhoods jointly, the number coming from the Switchmen's Union of North America being "negligible."

Board a Fixture—When Mr. Connors was preparing his report the Adjustment Board was going through that period of inactivity which followed the United States Supreme Court's first decision in the so-called Elgin, Joliet & Eastern case; and the wage and rules-change movement which culminated in last May's strike by members of the B. of R. T. and B. of L. E. was getting under way. He mentioned those two developments and further advised President Truman that "continued amicable relations between the railroads and rail unions is sufficiently important to uninterrupted, efficient and economical rail transportation in the reconversion period to warrant your consideration of a meeting with the railroad and brotherhood executives for a general discussion of the rail labor situation."

Mr. Connors also reported that in the course of his investigation he had invited suggestions from labor and management, and "neither expressed a desire for the abolition" of the Adjustment Board. "While the establishment of a national board was opposed by the railroad industry in the congressional proceedings," he said, "it is now generally recognized that a board for the prompt disposition of disputes arising out of grievances and application and interpretation of agreements is essential to the public interest as well as the interest of the industry and its employees."

Douglass Alone on National Mediation Board

F. P. Douglass, chairman of the National Mediation Board, was left as the board's only member on February 1 when the term of Harry H. Schwartz expired. When this issue went to press, President Truman had not acted to fill the vacancy. The third membership has been vacant since July 1, 1946, when George A. Cook retired.

Meanwhile, it was learned that Mr. Schwartz will continue for the time being as chairman of the National Railway Labor Panel which the late President Roosevelt set up to provide wartime procedures whereby labor organizations could secure the appointment of emergency boards without threatening to strike. A former senator from Wyoming, Mr. Schwartz became a member of N. M. B. in February, 1943.

Pullman Employees—Correction

In the Representation of Employees item in the *Railway Age* of January 25, page 248, carmen in the repair shops of the Pullman Company were omitted from the crafts which the Pullman Car Employees Association of the Repair Shops retains the right to represent. It also was erroneously stated that the Brotherhood of Sleeping Car Porters, American Federation of Labor, retains the right to represent carmen in the yards, including coach cleaners. This right has actually been retained by the Independent Pullman Workers Federation.

Compound Accident Caused by Failure to Heed Signals

Failure to operate a following train in accordance with signal indications caused the December 13, 1946, accident on the Pennsylvania near Guthrie, Ohio, where a rear-end collision between two freight trains piled up wreckage which was struck by a passenger train moving on an adjacent main track, according to the report of an Interstate Commerce Commission investigation conducted under the supervision of Commissioner Patterson.

The accident resulted in the death of 15 passengers and four train-service employees, and the injury of 131 passengers, six train-service employees, one Pullman employee and one dining-car employee. It occurred at 2:25 a.m., when the weather was cloudy, on the P. R. R.'s main line from Pittsburgh, Pa., to Crestline, Ohio—186.7 miles of double-track line over which trains moving with the current of traffic are operated by signal indications. The point of the accident, 0.71 miles west of the station at Guthrie, is 163.91 miles west of Pittsburgh. The eastbound freight trains involved in the first collision approached that point over a tangent 4,277 ft. in length, a 3 deg. curve to the left, 273 ft., and a tangent, 2,426 ft. The westbound passenger train approached the wreckage which obstructed its track over a tangent 1,847 ft. in length, a 1 deg. curve to the left, 494 ft., and a tangent, 355 ft. The grade is 0.48 per cent descending eastward, and the tracks are laid on a 12-ft. fill, the distance between the centers of the eastward and westward main tracks being 13 ft. 2 in.

Automatic signals 166.4 and 164.4, governing eastbound movements on the eastward track (No. 1), are, respectively, 2.28 miles and 996 ft. west of the point of collision. Automatic signal 162.3, governing westbound movements on the westward track (No. 2), is located 1.98 miles east of the accident point. These signals are of the position-light type.

The first of the two freight trains was Extra 6191 East, consisting of a locomotive, 78 cars and a caboose. Occupying track No. 1, it stopped about 2:05 a.m., with the rear end standing 996 ft. east of signal 164.4. About 20 minutes later it was struck by Extra 8263 East, consisting of a locomotive, 50 cars and a caboose, which was moving "at an estimated speed of 25 m.p.h.," having passed signal 166.4 "without reducing speed," and signal 164.4, "which displayed stop-then-proceed-at-restricted-speed."

The caboose and the rear eight cars of Extra 6191 East were derailed, as were the tender of the engine and first four cars of Extra 8263 East. The wreckage obstructed track No. 2, and "immediately after" the collision this wreckage was struck by No. 63, the westbound "Golden Triangle" from Pittsburgh to Chicago, consisting of two locomotives and 13 cars of standard all-steel construction. This train had passed signal 162.3, which displayed proceed, and was moving at an estimated speed of 45 m.p.h. (its limit being 70 m.p.h.) when it struck the wreckage.

Both of its locomotives, its first five cars, and the front truck of the sixth car were derailed, separations occurring between the engines and between the first four cars. The first locomotive stopped on its right side down the embankment with its front end about 525 ft. west of the point of collision, and the second locomotive stopped on its left side at the rear end of the tender of the first. Both engines were "badly damaged," and steam pipes within the cabs were broken. The first car, a coach, stopped against the firebox and tender of the second engine. It's "entire" body structure and underframing "collapsed," and the escaping steam from broken manifold turret pipes of the second engine was directed into the car, where most of the fatalities occurred.

The second car, also a coach, stopped practically upright, opposite the first car and across both main tracks, its front end

"crushed inward" and its body "out of square." The other derailed cars stopped in various positions on the roadbed and down the embankment, the third to fifth being "badly damaged" and the sixth "considerably damaged." Fatalities among the crews were the engineman and fireman of the passenger train's second engine and the fireman and front brakeman of Extra 8263 East.

The commission's investigation disclosed that Extra 6191 East's stop was due to an undesired brake application resulting from a tear in the brake-pipe hose at the rear end of the first car. The markings on the hose indicated that it was manufactured in April, 1936. When the train stopped, the conductor proceeded to a telephone located about 200 ft. from the caboose, and the flagman proceeded westward to provide flag protection. The engineer and front brakeman inspected the train, and the fireman proceeded eastward to provide flag protection on Track No. 2. A few minutes later the engineer discovered the ruptured hose, and instructed the front brakeman to proceed to the caboose to procure tools and a replacement hose. He then recalled the fireman, and informed the operator at Lucas by telephone about the delay. The operator relayed this information to the conductor.

Meanwhile the rear flagman, having placed two torpedoes on the track in the vicinity of signal 164.4, returned eastward to a point about 400 ft. west of the caboose. Soon afterward, he and the conductor saw the reflection of the following train's headlight about one-half mile away. As the report put it, "the flagman immediately gave stop signals with a lighted red fusee and the conductor gave stop signals with a lighted red lantern, and they continued to give these signals until the engine of Extra 8263 East passed them."

When the latter was approaching the point where the accident occurred its speed was "about 50 m.p.h.," the maximum limit for freight trains in the territory being 45 m.p.h. The engineer said that because of cold weather the right window of the cab was closed, and that he was looking ahead through the "clear-vision" window at the front of the cab. He "thought signal 166.4 displayed "proceed" as his engine was approaching it, and he called that indication to the fireman. Then, after "momentarily" turning his head, he again looked forward and the signal "continued to display proceed." When the engine was about 1,500 ft. west of signal 164.4, the fireman called a warning; and the engineer then saw the "stop-then-proceed-at-restricted-speed" indications of that signal, the burning fusee, and the lighted red marker lamps of the preceding train. Meanwhile, he had moved the brake valve to emergency position "immediately" upon getting the warning call from the fireman.

When this collision occurred, the passenger train on the other track had already passed the front portion of the first freight train. Thus the engineer of the passenger train's head locomotive was not aware of anything being wrong until his engine struck the wreckage.

Calling attention to the P. R. R.'s flagging rule which stipulates that "full protection" in automatic block-signal territory consists of providing flag protection a distance sufficient only for stopping a following train which is being operated under a "stop-then-proceed-at-restricted-speed" indication, the report went on to point out that under the conditions present, signal 166.4 should have displayed a "proceed-prepared-to-stop-at-the-next-signal" indication for Extra 8263 East. The engineer who stated that the signal displayed "proceed" was the only surviving member of that train's crew who was in a position to see the indication.

Immediately after the accident, tests were made of the signals involved, and during a subsequent 48-hour period they were under "constant observation" to determine whether any condition was present that would cause signal 166.4 to display a phantom or false indication. No such condition was found.

Purcell Testimony Marks End of Reed Bill Hearings

Hearings before the Senate committee on interstate and foreign commerce on S.110, the bill introduced by Senator Reed, Republican of Kansas, to stay the operation of anti-trust laws with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission, were concluded February 4, following the testimony of Robert W. Purcell, vice-president, law, of the Chesapeake & Ohio. Senator Reed's bill is an amended version of the House-approved Bulwinkle bill, which was favorably reported from the Senate committee last year and then left to die on the calendar.

Mr. Purcell, who said that his testimony would reflect the views of Robert R. Young, chairman of the C. & O. and the Alleghany Corporation, asserted that he aimed to "clarify the confusion which has existed and which still exists" with respect to rate-making conferences and other joint procedures of the railroads.

Young's New Association—Speaking briefly about the "new railroad association" which Mr. Young is organizing, Mr. Purcell said that it would be of a "different type" than the Association of American Railroads. He declared that every railroad will be given an opportunity to join, and that the "public" would be invited to participate.

With respect to S.110, Mr. Purcell said that the "present cumbersome and complex" rate-making procedures often result in long delays to both shippers and railroads and that "in most cases" the "more influential railroads" have "more to say" than the smaller roads as to what a rate will be. Agreeing that the railroads must confer in order to establish rate adjustments and maintain a rate structure which is "reasonable and without prejudice to anyone," Mr. Purcell at the same time asked for legislation which would result in a "simplified procedure" for the railroads and shippers.

According to Mr. Purcell, rate-making procedures under S.110 would be "unduly cumbersome and deterrent." Assailing present rate procedures the C. & O. officer was particularly critical of the system of appeals practiced by the Southern Freight Association. He said that rates should be made effective immediately if no controversy exists, adding that under the present "complex machinery," new rates often are delayed for as long as three years.

Wants More Competition—Declaring that the railroad industry needs a "renewal of competition" more than anything else, Mr. Purcell said that any agreement between competing railroads which tends to restrict services and facilities is "inimical to the welfare of the entire industry, the traveling public and the shipper." Implying that such agreements destroy the incentives for competitive development by individual roads, Mr. Purcell added that approval of S.110 would "destroy initiative at a time when the industry is crying for it."

"Railroads should not be permitted to agree among themselves on when and where air conditioning should be introduced or improved passenger equipment and other facilities constructed," he said in part. "Neither should the railroads be permitted to agree among themselves as to what services should be rendered to shippers. The . . . bill would provide the means of legalizing such agreements, although they are clearly contrary to the public interest."

Continuing his demands that the present rate-making machinery should be clarified through legislation which he said was not embodied in S.110, Mr. Purcell indicated that he would submit to the committee in the near future several suggested amendments to the measure. "I tried to get the Department of Justice to do that last year," Senator Reed remarked, adding that he thought S.110 was an improvement over the former Bulwinkle bill.

Can't Discuss Service—"The railroad industry must get together and talk about a lot of things," Mr. Purcell said, "but when they talk about service for the public there is a fundamental difference of philosophy. The railroads should not be permitted to agree upon such issues as time schedules and settlements of claims. We believe in independent action and in the right to run our railroads the way we want."

In response to questions from Senator Hawkes, Republican of New Jersey, and Senator McMahon, Democrat of Connecticut, Mr. Purcell denied reports that Mr. Young controls the New York Central. "The Alleghany Corporation has acquired some New York Central stock which is now deposited with the Chase National Bank in New York," he said. "We don't have a representative on the board of the New York Central, nor do we interfere with that road and its competition with the New York, Chicago & St. Louis."

Mr. Purcell said that if the C. & O. were to control the N. Y. C., its control of the Nickel Plate "probably would be disapproved by the Interstate Commerce Commission." Declaring that it would not be in the "interest of the public" because of the competitive factors involved, Mr. Purcell said that it is not the intention of the C. & O. or Alleghany to control both the N. Y. C. and the Nickel Plate.

Asked to explain Mr. Young's recent purchases of railroad stock, Mr. Purcell said that "Mr. Young feels that certain banks

and bankers have too much interest in the railroad field."

Truman Would Keep Some War Powers; Cites Car Shortage

Listing the "extremely serious freight car shortage" as one of the reasons for his request, President Truman this week asked Congress to extend several emergency powers embodied in the Second War Powers Act for one year beyond the present expiration date of March 31. The President's reference to the freight car situation came in that part of his message where he outlined the need for continued priority and allocation powers, while other parts of his presentation called for extension also of such other provisions of the expiring act as those under which the Interstate Commerce Commission has been exercising the same emergency powers over motor and water carriers that the Interstate Commerce Act gives it over railroads, and those embodying the United States Maritime Commission's authority to operate domestic water carrier services.

Meanwhile, the message which went to Congress on February 3 asserted the Administration's desire to discontinue war-time controls as soon as possible, and it outlined what has been accomplished along those lines. The Office of Defense Transportation, it said, "has eliminated all but three transportation orders." Its comment on the freight car situation was as follows:

"There is at the present time an extremely serious freight car shortage. The shortage will increase as the nation's production increases. The reported average daily freight-car shortage now amounts to approximately 22,000 cars. For a number of months car loadings have been heavier than at any period since 1930, including the war years. The American railroads have about 521,000 fewer cars now than in 1930, and about 31,100 fewer serviceable cars than they had on V-J Day. The number of freight cars being removed from service each month because of their being worn out exceeds on the average the number of new freight cars delivered to the railroads.

"The load our railways must carry is growing while the facilities for handling the load are dwindling. To cope with this problem with any measurable degree of success requires a provident use of rail transportation facilities. Allocation is therefore necessary if we are to use the railway freight cars and other equipment and facilities that we have at all efficiently in this period just ahead."

As to the Maritime Commission's ship-operating authority, the message said that such authority should be continued until M. C. "is in a position to settle with companies whose ships they have taken over and operated."

Car Service Orders

The Interstate Commerce Commission has issued Amendment No. 3 to Service Order No. 648, which provides car-supply priority for foreign-relief grain and requires permits for other carload shipments of grain at specified western markets. The amendment, effective January 26, adds Nebraska City, Nebr., to markets under the jurisdiction of Permit Agent L. A. Denison at Omaha, Nebr., and Alva, Okla., and Blackwell to stations under the jurisdiction of Agents C. T. Aspelmier and J. G. Harris at Dallas, Tex.

Service Order No. 624, which requires Office of Defense Transportation approval of permits and provides priority for export grain through North Atlantic ports, has been modified by Amendment No. 4 which appoints Paul B. Christian of O. D. T.'s Railway Transport Department as I. C. C. agent under the order. The former agent was A. S. Johnson who recently resigned from O. D. T.'s staff.

Director Johnson of O. D. T. has issued Special Allocation Order ODT R-1 requiring tank car owners to make available, by lease, to chemical companies having Army-owned tank cars in their service, a total of 190 tank cars which are to be converted and made available to the War Department for the transportation of ammonium nitrate solution in connection with the Army fertilizer program. This action will permit the retention by the chemical companies of 318 Army-owned cars which are now in the service of such companies in transporting sulphuric acid.

Amendment No. 1 to Service Order No. 668 has been issued by the commission to add Minnesota and Wisconsin to territory under the jurisdiction of E. W. Coughlin, whom the original order appointed commission agent with authority to divert or reroute loaded freight cars.

Service Order No. 620, which prohibits the light-weighing of cars intended for loading with imported commodities at Atlantic, Gulf and Pacific ports, has been modified by Amendment No. 1 which provides for the exemption of cars loaded with imported shipments of tropical fruits. Amendment No. 4 to Service Order No. 135 sets back from February 5 until June 30 the effective date of that order, which provides for super-demurrage charges on cars of export traffic held at Mexican border points.

Supply Trade

Richard T. Coyne, formerly eastern district manager of the H. K. Porter Company, has joined the **Pullman-Standard Car Manufacturing Company** as sales agent in the New York office.

The **All-State Welding Alloys Company,** White Plains, N. Y., has announced the opening of an export office at 21 State street, New York. **J. V. Cremonin** has been appointed manager of the new office.

N. H. Snyder, representative of the **Rail Joint Company,** at Chicago, has been appointed representative at St. Louis, Mo., with headquarters at 319 N. Fourth street.

Simtex Mills, New York, have announced the assignment of **Edwin T. McManus** to the Pacific coast (west of Denver, Colo.) territory. Mr. McManus, a navy combat veteran, will work out of the Simtex office in Los Angeles, Calif.

Alfred G. Findlay has been appointed manager of the stainless steel sales division of the **United States Steel Supply Company** (a subsidiary of the United States Steel Corporation), with headquarters at 1319 Wabansia avenue, Chicago.

John W. Logan, who retired last September as secretary and treasurer of the Alan Wood Steel Company, died in Philadelphia, Pa., on January 28. He was 75 years old. Mr. Logan was born in Greensburg, Pa., and joined Alan Wood Steel's operating department in 1904. His entire business career was spent with that firm.

Fred C. Helms, Jr., formerly vice-president in charge of eastern division sales for the Republic Drill & Tool Co., has been appointed manager of railway sales for the **Brubaker Tool Company,** with headquarters in the Socony-Vacuum building, 79 East Van Buren street, Chicago 5.

Frank B. Powers has been appointed assistant to vice-president—operations for the **Baldwin Locomotive Works,** to work mainly in connection with Diesel-electric locomotives. Mr. Powers was graduated from the University of Illinois

Frank B. Powers

in 1926. He was engineering manager for the Transportation and Generator division of the Westinghouse Electric Company until 1945 and subsequently served as executive vice-president of Great American Industries, Inc.

George L. Kippenberger, vice-president and assistant general manager of the **St. Louis Car Company,** with headquarters at St. Louis, Mo., has retired, following 45 years of service. He will remain with the firm as director and consultant. **Elmer C. Wrausmann,** assistant to vice-president, has been advanced to vice-president in charge of sales. **Chester C. Bleikamp,** executive assistant, has been promoted to vice-president, specializing in production planning and coordination.

Leonard W. Beck, formerly acting general sales manager and manager of the central region for the **Cummins Engine Company,** has been appointed general sales

manager. He will relinquish the regional post. **V. E. McMullen,** who has been serving as vice-president and general manager, has been promoted to executive vice-president. **R. E. Huthsteiner** has been promoted to vice-president and general manager. Before his promotion, he was vice-president, assistant general manager and controller. **Waldo M. Harrison,** formerly assistant controller and materials manager, has been appointed controller.

E. M. Schultheis, formerly manager of sales for the Automotive division of the **Clark Equipment Company,** has been appointed manager of sales for the firm, and **Leo A. Bixby,** formerly manager of engineering for the Automotive division, has been appointed manager of engineering for the company. It was erroneously reported in *Railway Age* of January 25, page 250, that the appointments of Mr. Schultheis and Mr. Bixby were to the company's Tructractor division. The following will be on Mr. Schultheis' staff: **Truman F. Schrag,** sales manager, Automotive division; **James H. W. Conklin,** sales manager, Tructractor division; **James S. Hearons,** sales manager, Railway division and **L. W. Weaver,** sales manager, Tool division.

William W. Gould, field engineer of the storage battery division of **Thomas A. Edison, Inc.,** since February, 1943, with headquarters at the Philadelphia, Pa., district office, has been appointed district manager at Cleveland, Ohio, to succeed **Alva E. Radcliffe** who has become associated with B. I. Florey, Cleveland representative of the Automatic Transportation Company. Mr. Gould began his career in 1923 as a draftsman on the Canadian Pacific. A year later he joined the Illinois Central as a draftsman, advancing to chief inspector and, in 1930, he joined the Delaware, Lackawanna & Western as construction foreman. In 1931 he was appointed electric supervisor of the Reading which position he held until he joined Edison in 1943.

The **American Car and Foundry Company** has announced the appointment of **T. C. Ballou** as manager of welded

T. C. Ballou

products sales, in charge of sales of weldments and welded products other than tanks, pressure vessels and cars of welded construction. Mr. Ballou was graduated from Western Reserve University in 1935. He joined the Canton Tank Car Company of Cleveland, Ohio, in that year and, in 1936, joined American Car and Foundry as sales agent in the Cleveland office. During World War II he served in the United States Naval Reserve, returning to the

F. H. Eaton

company in November, 1945. In December, 1946, he was transferred to the New York sales office as a sales agent in the tank car department.

The appointments of **F. H. Eaton,** formerly sales engineer, and **H. J. Russell,**

Blackstone

H. J. Russell

formerly sales agent, as assistants to the vice-president in charge of sales, with headquarters in New York, also were announced. Mr. Eaton was graduated from the Newark Academy and Williams College. After graduation from the latter in 1922, he took the shop training course at the A. C. F. Berwick, Pa., plant, completing the course in 1925. For the next ten years he worked in the engineering department on various phases of passenger, freight, mine and industrial car building and subsequently served as sales engineer in the company's sales offices in Pittsburgh, Pa., St. Louis, Mo., Washington, D. C., and New York.

Mr. Russell was graduated from the University of Illinois in 1939 and in the same year joined American Car and Foundry as a sales agent in the Cleveland district sales office. During World War II he served with the U. S. Navy for 2½ years. Following his release from active duty in 1945, he resumed his former work at the Cleveland office. In February, 1946, he was transferred to the general sales office in New York.

George S. Blackmore, whose appointment as western district manager of the **Western Railroad Supply Company,** with headquarters at Chicago, was reported in the *Railway Age* of January 25, was educated at Shady Side Academy and Dartmouth College. He joined the Bendix Westinghouse Automotive Air Brake Company in 1936, serving in various capacities in the management, engineering and sales of the company's products. In 1939 he represented the company in the New Eng-

George S. Blackmore

land territory, and the following year he was appointed district manager of the Texas-Oklahoma territory. From 1943 to 1946 he served in the Ordnance Corps of the U. S. Army, devoting most of this time to instruction in the operation and maintenance of equipment. Following his discharge from the service, he returned to Bendix Westinghouse as representative in the Maryland, Virginia and District of Columbia district, in which position he remained until his recent appointment.

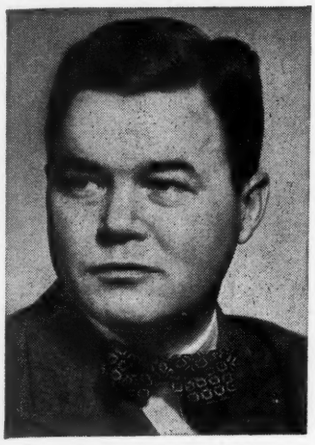
The **American Locomotive Company** has announced the appointment of **Holmes**

George Mason

Brown as director of public relations to succeed **Lynn Mahan,** who has resigned to form his own public relations organiza-

tion. **George Mason,** who will continue as director of information, has been appointed assistant director of public relations.

Mr. Brown was formerly associated with the General Electric Company and the Pennsylvania Rubber Company. He joined



Holmes Brown

American Locomotive in 1945 as director of advertising and sales promotion. In his new appointment, he will supervise all advertising, sales promotion and publicity activities.

Mr. Mason was formerly director of public relations for the Pennsylvania-Central Airlines in Washington, D. C. He entered the Army Air Forces in 1942 and, following his release from the service in 1945, joined American Locomotive.

The **United States Steel Corporation** has announced the following changes: **Gerald E. Rhodes,** assistant to the manager, of the **American Bridge Company,** at Gary, Ind., has been promoted to assistant manager, succeeding **Jay K. Thompson,** who has retired. **Robert C. Tyson,** general accountant of U. S. Steel at New York, has been appointed assistant comptroller, with the same headquarters, succeeding **James Fleming,** who has retired. **James M. Darbaker,** assistant district manager at Chicago, has been promoted to district manager, with the same headquarters, succeeding **Walter E. Hadley,** who has retired. **Donald M. Morewood,** assistant to the vice-president of U. S. Steel of Delaware, has been appointed assistant vice-president, traffic department, with headquarters as before at Pittsburgh, Pa.

OBITUARY

William A. Bierman, president of the O. C. Duryea Corporation, died on January 30, at his home in Pittsburgh, Pa. He was 72 years old. Mr. Bierman started his career with the Pressed Steel Car Company. In 1904 he joined the Standard Steel Car Company as its secretary and, following its merger with the Pullman-Standard Car Manufacturing Company in 1934, he became a vice-president and assistant to the president of Pullman-Standard. He retired in 1938 but returned to business three years later as president of the Duryea Corporation.

Financial

ATCHISON, TOPEKA & SANTA FE-WABASH.—*Operating Agreement.*—These roads have applied to the Interstate Commerce Commission for authority to modify and extend an operating agreement of August 1, 1907, pertaining to the ownership, maintenance and joint use of certain tracks and other facilities between W. B. Junction, Mo., (formerly Carrollton Junction), and C. A. Junction, (formerly Camden Junction), approximately 29 miles. The modified agreement, drawn up by the two roads last September, would, among other things, change the present cancellation limit from 90 days' notice by either of the two roads to a fixed term of 99 years. It also would broaden that section which now permits either carrier to admit other roads to the use of its common line so as to provide that either of the applicants may admit one tenant each to the joint use of the tracks and the other jointly used facilities.

BOSTON & MAINE.—*Annual Report.*—Operating revenues of this road in 1946 amounted to $77,167,150, compared with $82,232,949 in the preceding year. Operating expenses totaled $64,126,323, compared with $70,374,765. Net income before contingent charges was $1,964,648, compared with $752,928. The road said it failed to meet 1946 contingent charges by $448,727.

Freight revenue for the year showed a decrease of $7,785,373, or 3.2 per cent. Passenger revenues dropped $2,505,988, or 13 per cent, and express revenue decreased $952,063, or 76.9 per cent. Mail revenue increased $37,441, or 2.9 per cent. It was pointed out that the almost 77 per cent slump in express revenue did not reflect a decrease of that extent in the volume handled but was caused by higher wages and expenses for handling express shipments.

CLINCHFIELD.—*1945 Annual Report.*—Operating revenues of this road in 1945 totaled $13,196,914, compared with $14,244,001 in the preceding year. Operating expenses were $8,757,153, compared with $6,785,674. Net income was $1,147,696, compared with $3,862,513. On December 31, 1945, long-term debt was $2,823,115, compared with $3,310,649.

CENTRAL OF GEORGIA.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has ordered this road's reorganization plan, as approved by the commission and the court, submitted, for acceptance or rejection, to 15 classes of creditors and three leased lines which have been found entitled to vote. The submission order was dated January 28, and an accompanying notice from I. C. C. Secretary W. P. Bartel said that the plan and other requisite material would be mailed to the voters on or about February 11.

CHICAGO, AURORA & ELGIN.—*Ends Reorganization Proceedings.*—The final order terminating reorganization proceedings of this road has been signed by Federal Judge John P. Barnes, at Chicago. Under the reorganization plan, property of the Chicago, Aurora & Elgin *Railroad* was transferred on October 1, 1946, to the Chicago, Aurora & Elgin *Railway.* (See *Railway Age* of September 28, 1946, page 540.) The order instructed certain bondholders to exchange old securities for new ones on, or before, January 15, 1954.

CHICAGO, BURLINGTON & QUINCY.—*Acquisition.*—This road has filed another supplemental application in the Finance Docket No. 15200 proceeding, in which it asks the Interstate Commerce Commission to approve its purchase of 130 shares of Missouri & Illinois Bridge & Belt stock from the Louisville & Nashville at $266.67 per share. Approval of the purchase would give the applicant 1,040 shares or 8/11 of the total outstanding stock of the belt-line, provided the commission meanwhile approves its other pending application for authority to purchase 260 shares from the Wabash and Baltimore & Ohio. (See *Railway Age,* January 25, page 251.)

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has authorized this road to assume liability for $1,020,000 of 2⅜ per cent equipment trust certificates, the proceeds of which will be applied toward the purchase of 5 lightweight sleeping cars at an estimated unit cost of $116,000, and 4 2,000-hp. Diesel-electric passenger locomotives at an estimated unit cost of $580,000. The sleepers will be acquired from the Pullman-Standard Car Manufacturing Company and the locomotives from Fairbanks, Morse & Co. The certificates will be dated February 1 and will mature in 15 annual installments, starting in 1948 The report also approves a selling price of 100.5673, the bid of Halsey, Stuart & Co., on which basis the average annual cost will be approximately 2.29 per cent.

CHICAGO, ROCK ISLAND & PACIFIC.—*Reorganization Appeals Argued.*—Two sets of appeals protesting orders of Federal Judge Michael L. Igoe, at Chicago, affecting the reorganization of this road, were argued in the United States circuit court of appeals there last week. The appeals, filed by senior creditors of the road, were taken under advisement. One appeal was from an order of Judge Igoe in which he refused to confirm the Interstate Commerce Commission plan for reorganization of the road, a plan that he had previously approved. The second appeal contested Judge Igoe's order approving a debt simplification plan proposed by Aaron Colnon, co-trustee of the road, with permission for a poll to be taken of bondholders on the plan. (Details of this plan were reported in the *Railway Age* of October 5, 1946, page 582.)

In attacking Colnon's plan, the appellants contended that any new plan must first be submitted to the I.C.C. before entering the courts for approval. They asserted that Judge Igoe erred in sending the I.C.C. plan back to that body after once having approved it.

Attorneys defending Judge Igoe's decisions claimed that the I.C.C. plan did not take into consideration the higher earnings of the road during and after the war. The senior bondholders contended that war

earnings were abnormal and should not be considered as a basis for long term planning. Also taken under advisement was a brief of the Alleghany Corporation filed as a "friend of the court" opposing the present plan of reorganization. The brief stated that the Alleghany Corporation, owner of $17,489,000 of Rock Island bonds, was willing to help prepare "a compromise plan for a more equitable reorganization of the debtor company" than that now proposed.

Alleghany said its efforts brought about a compromise plan which promises to expedite reorganization of the Missouri Pacific, and added: "Similarly, we believe a compromise plan could be effected in the reorganization of the Chicago, Rock Island & Pacific." The brief noted testimony last June to the effect that Rock Island then had increased its permanent investment in transportation facilities by $69,938,103, and asserted: "The improved asset position resulting from an increase in cash and investment in transportation property must be fairly and equitably considered in any plan of railroad reorganization."

HOBOKEN MANUFACTURERS.—*Control.*—Seatrain Lines has announced the abandonment of its Hoboken, N. J., terminal and the disposition, effective December 31, 1946, of its ownership of the Hoboken Manufacturers. This road is now being operated under the direction of Webb & Knapp, a New York real estate firm which before December 31, acquired all the assets of the Hoboken Land & Improvement Co., on whose property the Manufacturers has a slip and trestle, and much of the assets of the Hoboken Railroad Warehouse & Steamship Connecting Co., on whose property the rail line runs. Under an agreement among the various parties, approved by the federal court at Newark, N. J., Seatrain stock in the road was turned over to Connecting. Seatrain has announced that its new Edgewater, N. J., terminal, which adjoins the main yards of the New York, Susquehanna & Western, is nearing completion.

HUDSON & MANHATTAN.—*New Directors.*—Hugh A. Kelly, of Kelly & Cruzen, architects and engineers, and James L. Carey, president of the Necaro Company, have been elected directors of this road. Henry E. Peelle, vice-president, will temporarily assume the duties of president and William J. McEnery, a director, was elected temporary chairman. Robert A. W. Carleton recently resigned as chairman and president, and two directors, Ferdinand J. Sieghardt and Asa W. Jennings, also resigned. (See the *Railway Age* for January 18, page 195.)

LEHIGH VALLEY.—*Preliminary Annual Report.*—Operating revenues of this road in 1946 totaled $67,007,686, a decrease of 13.8 per cent under the $77,732,845 reported for the preceding year. Operating expenses amounted to $55,143,234, compared with $70,107,290. Net income was $108,102, compared with a deficit of $7,562,104.

MACON, DUBLIN & SAVANNAH.—*Extension of Bonds.*—Examiners H. C. Howard and F. E. Grutzik have recommended in a proposed report that Division 4 of the Interstate Commerce Commission conditionally authorize this road to extend from January 1, 1947, to January 1, 1972, the date of maturity on not exceeding $1,733,000 of first mortgage, 40-year, 5 per cent gold bonds. The condition recommended by the examiners would require that the bonds, as extended, be guaranteed by the Seaboard Air Line, which controls the applicant. With such guarantee, and in view of prevailing interest rates, the report also recommends that the commission find that the interest rate on the extended bonds should not exceed 4 per cent. The bonds were formerly guaranteed by the present Seaboard's predecessor, but the reorganized company did not assume the guarantee.

MISSOURI PACIFIC.—*Motion to Remand Reorganization Plan Denied.*—A motion to remand the reorganization plan of this road back to the federal district court at St. Louis, Mo., entered on behalf of several groups of major security holders, was denied last week by the United States circuit court of appeals at Kansas City, Mo. (See *Railway Age* of February 1, page 294.). Among the supporters of the motion—a move to discard the present plan and to draft a new one—was the Alleghany Corporation. The present M.P. reorganization plan wipes out stock equities held by Alleghany, while it is believed that a new plan would allocate sufficient stock in the reorganized company to effect working control of the road by the Young-controlled corporation.

MINNEAPOLIS & ST. LOUIS.—*Dividend.*—This road has declared an initial dividend of 25 cents a share on the capital stock, recently split 4-for-1, payable on March 1 to stockholders of record on February 15. The last payment on the old stock was $1 a share on June 15, 1946.

NEW YORK, SUSQUEHANNA & WESTERN.—*Reorganization Expenses.*—Acting upon a petition of Henry K. Norton, trustee of this road, Division 4 of the Interstate Commerce Commission has modified its order of October 10, 1946, in the Finance Docket No. 11681 proceeding, thereby approving effective January 1, 1946, instead of July 1, 1946, the increase from $12,000 to $16,000 yearly in the maximum rate of compensation to be paid to Ralph E. Lum, as counsel for the trustee.

NEW YORK, NEW HAVEN & HARTFORD.—*Reorganization Committee Appointed.*— A five-man committee to undertake the reorganization of this road under the approved plan has been named by United States District Court Judge Carroll C. Hincks. The committee members, selected by groups which have a financial interest in the reorganization and which control blocks of securities of the New Haven and its subsidiaries, are James H. Brewster, Jr., representing the insurance group; Allerton T. Brooks, representing the secured creditors; Myron F. Converse, representing the savings banks; John L. Hall, representing the debtor; and Kent T. Healey, representing unsecured creditors.

SEABOARD AIR LINE.—*Equipment Trust Certificates.*—This road has sold $3,000,000 of series A equipment trust certificates to Shields & Co. and Bear, Stearns & Co. and associates on a bid of 99.52 for a 1¾ per cent coupon, representing an interest cost to the Seaboard of 1.8375 per cent. The certificates, dated February 1, 1947, and maturing from 1948 to 1957, inclusive, were re-offered to the public, subject to Interstate Commerce Commission approval, at prices yielding from 1 per cent to 1.95 per cent, according to maturity. (See the *Railway Age* for January 25, page 251).

WESTERN PACIFIC. — *Refunding Plan Dropped.* — Division 4 of the Interstate Commerce Commission has dismissed, "for want of prosecution" but "without prejudice," the application in the Finance Docket No. 14989 proceeding wherein commission reports had attached conditions to their approval of this road's proposal to issue $10,000,000 of first-mortgage bonds, series B, due January 1, 1981, in connection with the redemption of a like amount of series A's, due January 1, 1974, and held by the Reconstruction Finance Corporation. The conditions, to which the applicant objected, were imposed by Division 4's original report of April 11, 1946, which report was affirmed by the entire commission in a July 19, 1946 report on reconsideration (see *Railway Age* of August 3, 1946, page 204).

They would have required, among other things, that the W. P. stipulate that its reserve funds of $5,400,500 for estimated 1945 income tax liabilities, and $10,100,000 for contingent tax liabilities would be held intact so that balances not required for those specific purposes could be added to the new issue's sinking fund along with any remaining balance of a $5,300,000 fund set aside to redeem general mortgage income bonds. The dismissal order, dated January 22, stated that the applicant's board of directors had taken no action since it was advised of the commission's July 19, 1946, report and order. It added that "the applicant will have no objection to a present dsimissal of the application, subject to possible renewal at some future date."

Average Prices Stocks and Bonds

	Feb. 4	Last week	Last year
Average price of 20 representative railway stocks..	52.06	50.73	67.26
Average price of 20 representative railway bonds..	92.75	92.42	103.26

Dividends Declared

Chestnut Hill.—75¢, quarterly, payable March 4 to holders of record February 20.

Chicago South Shore & South Bend.—30¢, quarterly, payable March 15 to holders of record March 1.

Delaware & Hudson.—$1.00, quarterly, payable March 20 to holders of record February 26.

Minneapolis & St. Louis.—new common (init.), 25¢, payable March 1 to holders of record February 15.

Norfolk & Western.—$2.50, quarterly; extra, $3.00, both payable March 10 to holders of record February 13.

Southern. — common, 75¢, quarterly, payable March 15 to holders of record February 15; 5% non-cum. preferred, $1.25, quarterly, payable March 15 to holders of record February 15; 5% non-cum. preferred, $1.25, quarterly, payable June 16 to holders of record May 15; 5% non-cum. preferred, $1.25, quarterly, payable September 15 to holders of record August 15.

Troy & Bennington.—$1.50, payable February 1 to holders of record January 15.

Construction

CHESAPEAKE & OHIO-LOUISVILLE & NASHVILLE.—Division 4 of the Interstate Commerce Commission has issued a single report wherein it authorizes each of these roads to construct a line to serve a new coal mine to be developed by the Pittsburgh Consolidation Coal Company in the vicinity of Deane, Ky. The L. & N. line will be a 16.4-mile extension of its Rockhouse Creek branch, connecting with the latter at or near Duo, Ky. The C. & O. line will be a 22.5-mile extension of its Elkhorn and Beaver Valley subdivision, connecting with the latter at Wayland, Ky. Each applicant originally opposed the other's application, but they subsequently agreed to amend their respective proposals to avoid overlapping of the lines in the vicinity of Deane. As now proposed, the two lines will approach the coal tipple from opposite directions.

DULUTH, MISSABE & IRON RANGE.—This road has applied to the Interstate Commerce Commission for authority to construct a 28.6-mile extension to its so-called Wales branch, starting from a point near Whyte, Minn. The extension, to be financed by funds from the applicant's treasury, would serve lumber and mining interests.

SOUTHERN.—This road has authorized the construction of teamways and tracks for the loading of peaches at Inman, S. C. (probable cost $48,000) and the construction of a track layout to serve the Superior Stove Company at Kings Mountain, N. C. (probable cost $34,600). Both projects will be undertaken by the Southern's own forces.

Equipment and Supplies

Domestic Equipment Orders Reported in January, 1947

Domestic orders for 25 Diesel-electric locomotives, 6,100 freight cars and 42 passenger cars were reported in the *Railway Age* in January (including the issue of February 1). The cost of the locomotives will be $15,000,000. The freight cars will cost an estimated $23,790,000 and the passenger cars will cost approximately $4,425,000. The accompanying table lists the orders in detail.

Date	Purchaser	No.	Type	Builder
LOCOMOTIVES				
Jan. 25	P. R. R.	6	7,500-hp. D. - E. frt.	Electro-Motive
		5	6,000-hp. D. - E. pass.	Electro-Motive
		9	6,000-hp. D. - E. pass.	Baldwin
		5	6,000-hp. D. - E. pass.	American
FREIGHT CARS				
Jan. 25	C. & O.	1,000	Box	Pullman-Standard
Jan. 25	N. Y. C. & St. L.	600	Box	Pullman-Standard
Feb. 1	N. Y., N. H. & H.	500	Box	Pullman-Standard
Feb. 1	L. & N.	1,600	Hopper	Pullman-Standard
		1,200	Hopper	Amer. Car & Fdy.
		200	Ballast	Amer. Car & Fdy.
Feb. 1	C. & O.	1,000	Hopper	General American
PASSENGER CARS				
Jan. 18	P. R. R.	19	Sleeping	Amer. Car & Fdy.
		2	Dining	Amer. Car & Fdy.
		4	Coach-Bar-Lnge.	Amer. Car & Fdy.
		3	Coach	Amer. Car & Fdy.
		1	Buff.-Lnge.-Sleep.	Amer. Car & Fdy.
		2	Bag.-Dorm.	Amer. Car & Fdy.
		1	Sleeping	Budd
Feb. 1	New York City	10	Subway	Budd

Hopes to Supply Steel for 7,000 Cars a Month

Announcing latest developments in connection with the so-called "voluntary set-aside" arrangements for freight car production, the Civilian Production Administration stated this week that the steel industry "has undertaken to provide enough rolled steel products for an indefinite period to put an additional 7,000 freight cars monthly on the nation's railroads and also to rehabilitate existing rolling stock." Emphasizing that the program is entirely a result of voluntary action on the part of the steel industry, C. P. A. pointed out that its own priority powers are scheduled to expire March 31. [As reported elsewhere in this issue, Director Johnson of the Office of Defense Transportation and spokesman for the railroads have termed the proposed production of 7,000 cars a month inadequate to relieve the situation.—EDITOR]

The announcement further revealed that the full program calling for monthly deliveries ranging from 165,000 to 175,000 tons of steel is expected to be in effect in April and thereafter; and, meanwhile, "as much steel as possible will be scheduled during March." No time limit has been assigned for the length of the program, but members of C. P. A.'s Industry Advisory Committee on Distribution of Steel for Freight Cars were reported to have agreed that the plan should continue "until the critical need for new freight cars and freight car repairs has been satisfied."

The program was developed at a series of meetings which representatives of C. P. A. held with the advisory committee over a period of five days last week. Among other matters discussed was the quantity of steel products which each steel company would attempt to provide. "Because of the type of steel needed," C. P. A. said, "the largest steel producers will necessarily assume the greater proportion of the tonnage required, although it is expected that all steel companies making products required for this program will contribute in proportion to their abilities."

If the 7,000-car monthly goal is reached, it will be double the production of recent months when the average output on domestic orders has been about 3,500 cars. As C. P. A. pointed out, car retirements have been averaging over 4,500 monthly; so the net monthly loss in totla supply has been more than 1,000 cars.

LOCOMOTIVES

Santa Fe Orders Gas Turbines To Be Built This Year

A new-type passenger locomotive, powered by a gas turbine engine using oil as fuel, will be built this year for the Atchison, Topeka & Santa Fe by the Baldwin Locomotive Works at its Eddystone (Pa.) plant, Fred G. Gurley, president of the road, announced this week.

Construction of the unit, which has been designed by research engineers of the Santa Fe, Baldwin and the Elliott Company of Jeannette, Pa., gas turbine manufacturers, will mark the first attempt to build such a locomotive for railroad use, Mr. Gurley said. It will cost approximately a half million dollars, measure about 77 ft. in length, weigh approximately 500,000 lb., and have a 4-8-4 wheel arrangement, he stated.

The turbine locomotive is expected to develop 3,000 hp. and attain speeds of over 100 m.p.h. Mr. Gurley pointed out that it will burn more oil than the Diesel locomotive, but said "it is reasonable to expect that a cheaper fuel can be used." In addition to lower fuel costs, he added that maintenance and repair costs are expected to be less, since the turbine has only rotating parts which are less subject to wear than other types of engines having reciprocating parts.

The NORFOLK SOUTHERN has ordered 10 1,500-hp. Diesel-electric freight locomotives from the Baldwin Locomotive Works, at a cost of $1,500,000.

The SOVIET UNION has ordered five locomotives of the 0-60 type from the Davenport-Besler Corporation. This equipment is in addition to the 30 engines of the same type ordered early last year. Shipment of the five locomotives, each of which will cost approximately $33,200, is scheduled for next June.

The ERIE has placed orders for 34 Diesel-electric locomotives at a total cost of $7,186,000. The American Locomotive Company will build 9 6,000-hp. freight engines and 6 1,000-hp. and 5 660-hp. switching engines. Ten 1,000-hp. switching locomotives will be built by the Electro-Motive Division of the General Motors Corporation. The Baldwin Locomotive Works will construct 3 1,000-hp. and 1 660-hp. switching engines. Delivery of this equipment is scheduled for this year.

FREIGHT CARS

The BALTIMORE & OHIO has ordered 4,000 50-ton steel hopper cars, 2,000 of which will be built by the Bethlehem Steel Corporation, 1,000 by the American Car and Foundry Company and 500 each by the

Pressed Steel Car Company and the Ralston Steel Car Company. An inquiry by the B. & O. for 1,000 hopper cars was reported in the *Railway Age* for January 25, page 250. The builders have promised to start deliveries next July, the road announced. Initial deliveries are expected to be at the rate of about 80 cars a day.

PASSENGER CARS

The CENTRAL OF BRAZIL is inquiring for 35 passenger cars of various types.

The NORFOLK & WESTERN has ordered 20 lightweight, streamlined sleeping cars of the 10 roomette-6 double bedroom type from the Budd Company. Delivery, the railroad said, has been promised for the first quarter of 1948.

The MISSOURI PACIFIC has ordered 8 stainless steel passenger cars from the Budd Company. The order consists of 4 day-and-night coaches, 2 dining-lounge cars and 2 sleeping cars of the 10 cabin-6 double bedroom type. The new cars will augment equipment previously ordered for four streamlined trains to replace present equipment on the "Sunshine Specials."

SIGNALING

The ILLINOIS CENTRAL has placed an order with the Union Switch & Signal Co. for the signal material required to install centralized traffic control between Central City, Ky., and Pond, 16 mi. of single track. The order includes a Style C control machine, with code equipment, Style TP-5 color-light signals, Style SL-6A electric switch locks, relays, rectifiers and housings. The installation will be handled by railroad forces.

The NEW YORK CENTRAL has contracted with the General Railway Signal Company for equipment to install an all-relay electric interlocing at North East, Pa. The control machine, which will be installed in WV Tower at Wesleyville, will have an 18-in. by 50-in. panel, equipped with 16 track-indication lights and 18 levers for the control of 10 switch machines and 16 signals at the North East interlocking 9.8 miles away. The Type-F four-wire coded system will be used. Included in this order are Type-B relays, Model-A electric switch locks, and Model-5D dual-control electric switch machines.

The GENERAL ELECTRIC COMPANY has placed an order with the General Railway Signal Company for 4 sets of continuous inductive train control equipment for installation on Diesel-electric passenger locomotives for the Chicago & North Western.

The AMERICAN LOCOMOTIVE COMPANY has ordered 30 sets of cab signal equipment from the General Railway Signal Company. This apparatus is for installation on Diesel-electric locomotives to be used on the Shore line and the Hartford division of the New York, New Haven & Hartford.

The DENVER & RIO GRANDE WESTERN has ordered equipment from the General Railway Signal Company for the extension of the present centralized traffic control in the Moffat tunnel area. A 10-in. panel section will be added to the control machine in Denver, Colo. This new panel section will have 11 track indication lights and 8 levers for the control of a switch machine, 2 electric switch locks, and 15 signals on 2 miles of single track in and in the vicinity of the Moffat tunnel, near East Portal, Colo. The present control machine at East Portal will be retained as a standby, but its functions will normally be taken over by the Denver machine. The new work will also include installation of the latest types of coded track circuits and equipment in the Moffat tunnel.

Abandonments

TEXAS & NEW ORLEANS.—This road has applied to the Interstate Commerce Commission for authority to abandon 3.7 miles of track which it described as a portion of its "old main line" in Dallas, Tex. Also involved in the proposed abandonment would be 1.5 miles of spur tracks.

Railway Officers

EXECUTIVE

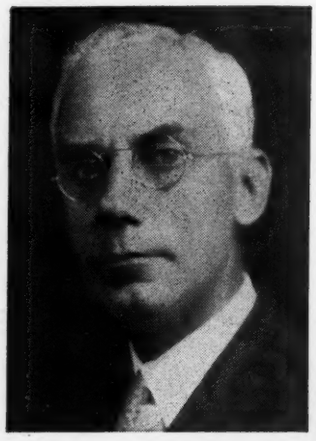
G. A. Ryser, assistant general freight agent of the Texas & Pacific, at Dallas, Tex., has been advanced to assistant to vice-president—traffic, with the same headquarters.

Tom L. Peeler, Jr., whose promotion to assistant to president of the Missouri-Kansas-Texas, with headquarters at Houston, Tex., was reported in the *Railway Age* of January 18, was born on July 28, 1906, at Dallas, Tex., and received his higher education at Southern Methodist University. He began his railroad career with the Katy in 1925, working during the summer

Tom L. Peeler, Jr.

months in the office of vice-president, operating department, at Dallas. In March, 1927, he became file clerk there, and in September of that year he was appointed traffic clerk. He was advanced to soliciting freight agent at Waco, Tex., in 1930, remaining in that position until 1932, when he became commercial agent of the Texas Electric at Waco. Rejoining the Katy the following year, Mr. Peeler was appointed division freight and passenger agent at Galveston, Tex. He was transferred to Tulsa, Okla., in 1938, where he was located at the time of his promotion to assistant to president.

Howard W. Schotter, whose promotion to assistant vice-president in charge of finance of the Pennsylvania system at Philadelphia, Pa., was reported in the *Railway Age* of February 1, was born and educated in Philadelphia. After several years in the investment banking business in Philadelphia, he entered railroad service in November, 1906, as a clerk in the executive department of the Pennsylvania. In Decem-



Howard W. Schotter

ber, 1917, he was assigned to duty in the president's office and in 1919 was appointed chief clerk to the president. In July, 1925, he was promoted to analyst in the treasury department and a year later became assistant treasurer. He became treasurer in June, 1940, which position he held until his recent promotion to assistant vice-president. Mr. Schotter is the author of "The Growth and Development of the Pennsylvania Railroad Company", published some years ago.

Herman T. Frushour, whose appointment as assistant vice-president and chief engineer of the Pennsylvania at New York, was reported in the *Railway Age* of February 1, was born at Logansport, Ind., on February 17, 1882. Following his graduation in 1902 from high school at Logansport, Mr. Frushour served as an engineering rodman and as a locomotive fireman on the Logansport division of the Pennsylvania. He subsequently attended Purdue University, graduating in 1907 as a bachelor of science in civil engineering. Returning to the Pennsylvania, he gained further experience in the engineering corps and, after several advancements, was appointed superintendent of the Monongahela division in 1928. Mr. Frushour was transferred to the Erie and Ashtabula division at New Castle, Pa., in June, 1929; to the St. Louis division at Terre Haute, Ind., in September, 1932; to the Eastern division at Pitts-

News Department continued on next left-hand page

It's the "KNOW HOW" *here...*

...that BRINGS RESULTS here

The engineering knowledge and experience that go into the preparation of the original design determine the efficiency of the locomotive when it is put in service.

To this basic knowledge Lima adds careful adherence to exact dimensions and specifications during construction. It is through such attention to detail that Lima has earned for itself its enviable reputation as a builder of long-life, economical power . . . power that is capable of hauling heavy loads at the sustained speeds that modern operational requirements demand.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED **INCORPORATED, LIMA, OHIO**

burgh in July, 1933, and to the Long Island at Jamaica in November, 1935. He was promoted to general superintendent of the Western Pennsylvania division at Pittsburgh in September, 1939, becoming general manager of the New York zone at

Herman T. Frushour

New York in August, 1942, which position he held until his recent promotion to assistant vice-president and chief engineer at New York.

Golder Shumate, who has retired as vice-president in charge of traffic of the Baltimore & Ohio at Baltimore, Md., as reported in the *Railway Age* of February 1, was born at Calverton, Va., on February 1, 1877. Mr. Shumate began his railroad career in 1897, when he entered the service of the Baltimore & Ohio as a clerk in the freight office at Washington, D. C. He became chief clerk in the general freight department at Baltimore in January, 1913, and in May, 1916, he was appointed division

Golder Shumate

freight agent, which position he held successively at Youngstown, Ohio and Baltimore. In March, 1917, he was appointed assistant general freight agent at Baltimore, becoming general freight agent there in December of that year. Mr. Shumate served as freight traffic manager from March, 1920, to July, 1921, when he became general freight traffic manager. He was appointed vice-president in charge of freight traffic, mail and express traffic and commercial development in 1930 and in February, 1946, his jurisdiction was extended to include passenger traffic.

Allan C. MacDonald, superintendent of the Farnham division of the Canadian Pacific, with headquarters at Farnham, Que., has been appointed assistant to the president at Montreal, Que. Mr. MacDonald was born at Portage la Prairie, Man., on February 16, 1914, and educated at Wolseley, Sask., Regina and Yorkton, and at Winnipeg, Man. From 1929 to 1942 he served the Canadian Pacific in the West at Winnipeg and Vancouver, B. C., with his service divided between hotel, purchasing and operating departments, becoming assistant chief clerk to the assistant general manager at Vancouver. Going

Allan C. MacDonald

east, he served the vice-president of the company as secretary, chief clerk and on special duties in connection with transportation equipment committee of the Combined Production & Resources Board. He was for more than a year assistant to the general superintendent of the Quebec district before going to Toronto, Ont., as superintendent of the Trenton division in June, 1945. He was transferred to Farnham in March, 1946.

FINANCIAL, LEGAL AND ACCOUNTING

Reginald Ames has been appointed general attorney of the Northern Pacific, with headquarters at St. Paul, Minn., succeeding **Daniel R. Frost,** who has retired.

Frank M. Muir, assistant treasurer of the Pullman Company, with headquarters at Chicago, has retired following 49 years of service.

G. C. Armstrong has been appointed assistant treasurer of the Norfolk & Western, with headquarters at Philadelphia, Pa. **W. H. Ogden** has been appointed assistant secretary at Philadelphia. **W. A. Russ,** assistant treasurer and assistant secretary at Philadelphia, has retired.

M. L. Hankins has been appointed right of way agent of the Chesapeake & Ohio at Huntington, W. Va., succeeding **W. L. Harrison,** who has been promoted to assistant general real estate agent at Huntington to succeed **E. B. Rush,** deceased.

John G. Griffith, freight claim adjuster for the Pennsylvania at Philadelphia, Pa., has been appointed district freight claim agent at Baltimore, Md., to succeed **E. L. Hershberger.** Mr. Griffith was educated at the Wharton School, University of Pennsylvania, specializing in the study of traffic rates, foreign trade and commercial law. With the exception of two years' service in World War I, Mr. Griffith has served continuously in the freight claim department of the Pennsylvania since 1909, when he entered railroad service as a junior clerk. In 1936 he was appointed freight claim adjuster at New York, being transferred to Philadelphia in 1945.

OPERATING

C. H. Keller has been appointed superintendent of the Chicago Terminal division of the Wabash, with headquarters at Chicago, succeeding **Earle Lind,** who has retired at his own request.

L. R. Bangs, superintendent of the Canadian Pacific at Toronto, Ont., has been transferred to the Farnham division at Farnham, Que., to succeed **A. C. MacDonald,** whose promotion to assistant to the president is noted elsewhere in these columns.

J. R. Cantwell, division superintendent of the Chicago & North Western, with headquarters at Chadron, Neb., has been transferred to Chicago, where he relieves **H. S. Smith.** Mr. Smith succeeds Mr. Cantwell as superintendent at Chadron.

C. A. Birge, superintendent of safety of the Missouri-Kansas-Texas at Dallas, Tex., has been promoted to division superintendent, with headjuarters at Denison, Tex. A photo of Mr. Birge and a sketch of his career appeared in the *Railway Age* of December 28, 1946, page 1104, in connection with his promotion to superintendent of safety. He succeeds **C. W. Campbell,** who has been transferred to Wichita Falls, Tex.

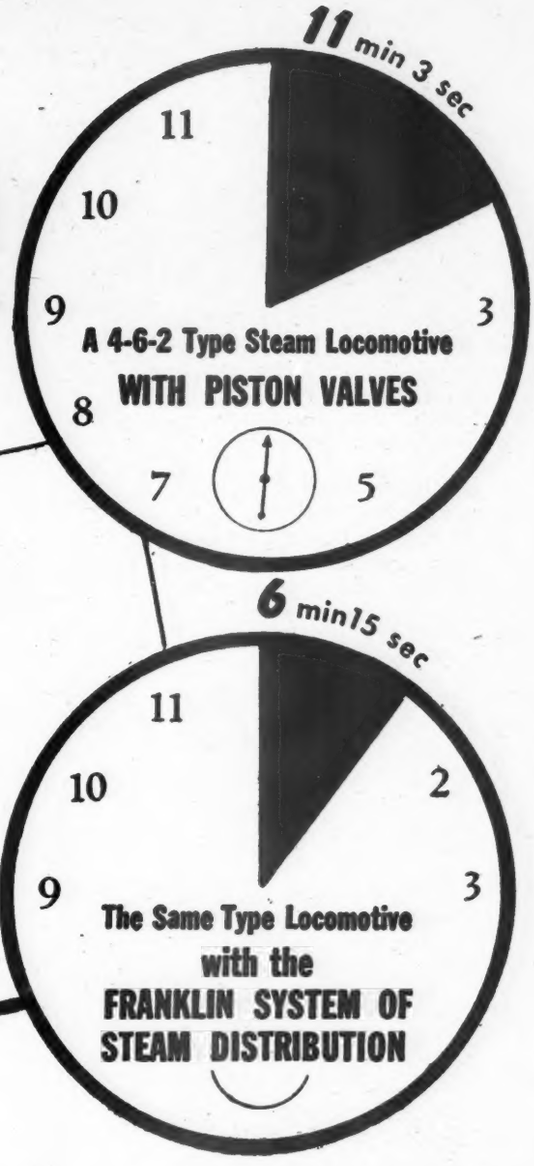
William C. Satterfield, whose promotion to superintendent of the Union Pacific at Denver, Colo., was reported in the

William C. Satterfield

Railway Age of January 11, was born on June 14, 1900, at Dardanelle, Ark. He began his railroad career with the U. P. in 1919 as a station helper on the Colorado

News Department continued on next left-hand page

Back to Road Speed
IN HALF THE TIME!



time required to accelerate a 1000-TON TRAIN from 40 MPH to 75 MPH on level tangent track

The time required to get a train back to road speed after a slow down is dependent upon the power available for acceleration. Locomotives equipped with the Franklin System of Steam Distribution produce the increased horsepower required for faster acceleration, speeding up of schedules and the making of difficult schedules under adverse weather or operating conditions.

As indicated by the diagram, nearly five minutes were saved in regaining road speed from one slow down by a poppet-valve locomotive. Multiplying this by the several slow downs on a typical division shows the time-saving possibilities of the Franklin System of Steam Distribution. Yet this is only one of its advantages—fuel saving and saving in maintenance may be even more important.

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STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

division, and was advanced to telegrapher on that division in 1920. Remaining in that capacity until 1928, he subsequently became a train dispatcher, and in 1935 he was promoted to trainmaster at Denver, Colo. He held this position also at Salina, Kan., and Ogden, Utah, returning to Denver as trainmaster in 1941. He was advanced to assistant superintendent there in 1943, in which capacity he remained until his promotion to superintendent.

William W. Young, whose promotion to superintendent of terminals of the Chesapeake & Ohio, with headquarters at Chicago, was reported in the *Railway Age* of January 11, was born on August 30, 1911, at Butterworth, Va. He entered railway service with the C. & O. in 1930 at Richmond, Va., as stenographer-auditor of overcharge claims, and shortly thereafter was appointed secretary, zone revision bureau, at Charleston, W. Va. From 1931 to 1941 Mr. Young served successively as secretary to assistant auditor of disbursements at Huntingdon, W. Va.; secretary to assistant controller, Richmond; and accountant, as-

William W. Young

sistant controller's office, Richmond. He was appointed secretary to general manager at Richmond in 1943, and secretary to executive vice-president there in 1945. Mr. Young was serving in the latter capacity at the time of his appointment as superintendent of terminals.

Charles E. Adams, whose appointment as general superintendent of the Southwestern division of the Pennsylvania at Indianapolis, Ind., was reported in the *Railway Age* of February 1, was born at Kokomo, Ind., and studied engineering at Ohio State University. He entered railroad service in 1907, serving in the operating department of the Pennsylvania during vacations from school. He became yard clerk in 1907 and from 1908 to 1920 he served as assistant in the engineering corps, successively on the Richmond, Cincinnati and Akron divisions. In 1920 he became supervisor at Akron, transferring to East Aurora, N. Y., in October, 1922; and to Rochester, Pa., in April, 1926. Mr. Adams was appointed division engineer of the St. Louis division at Terre Haute, Ind., in 1928, subsequently transferring to the Philadelphia Terminal division. In December, 1929, he became general agent at Grand Rapids, Mich., and in 1930 he was appointed superintendent of the Grand Rapids division. He was transferred to the Toledo (Ohio) division in June, 1932; to the Panhandle division at Pittsburgh in July, 1933; to the Pittsburgh division in February,

Charles E. Adams

1937; and to the Long Island at Jamaica, N. Y., in September, 1939. Mr. Adams was promoted to chief engineer of the New York zone in November, 1940, which position he held at the time of his recent appointment as general superintendent of the Southwestern division at Indianapolis.

J. R. Thorne, superintendent of the North Florida division of the Seaboard Air Line, with headquarters at Jacksonville, Fla., has been promoted to assistant general manager, with headquarters at Norfolk, Va., succeeding **R. W. Rogers,** who has been appointed chief mechancial officer. A photograph of Mr. Thorne and a sktech of his railway career appeared in the *Railway Age* of August 31, 1946, in connection with his appointment as superintendent of the North Florida division. **J. N. Broetzman,** terminal superintendent at Hamlet, N. C., has been appointed superintendent of the North Florida division at

E. E. Hamer

Jacksonville, succeeding Mr. Thorne. A photograph of Mr. Broetzman and a sketch of his career were published in the *Railway Age* of March 9, 1946, in connection with his appointment at Hamlet. **E. E. Hamer,** trainmaster on the Georgia division, has been appointed terminal superintendent at Hamlet, succeeding Mr. Broetzman.

Mr. Hamer was born at Rockingham, N. C., and entered the service of the Seaboard Air Line in 1925 in the mechanical department. Transferring to the transportation department, he served as general yardmaster at Charlotte and also as assistant trainmaster at Hamlet.

John W. Leonard, whose appointment as superintendent of passenger transportation of the Pennsylvania at Philadelphia, Pa., was reported in the *Railway Age* of February 1, was born at Brooklyn, N. Y., on December 3, 1898, and attended Haverford (Pa.) School and Haverford College. After service with the U. S. Marine Corps during World War I, Mr. Leonard served as timekeeper and office engineer with the Walter R. Cliffe Company, general contractors, at Philadelphia, and with the Dravo Contracting Company, Pittsburgh, Pa. He entered railroad service in 1923 as special apprentice for the Pennsylvania at Altoona, Pa., becoming motive power inspector at Harrisburg, Pa., in 1926. A

John W. Leonard

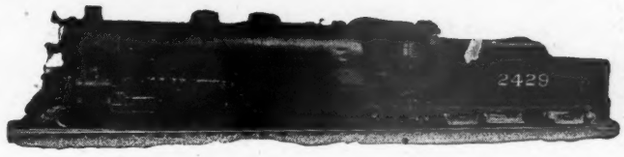
year later he was appointed gang foreman, Harrisburg enginehouse and in 1928 he became enginehouse foreman at Lancaster, Pa. After serving as assistant enginehouse foreman at Altoona and Camden, N. J., successively, Mr. Leonard was appointed assistant master mechanic at Harrisburg in 1936. The following year he was promoted to master mechanic at Camden and in 1938 he became assistant engineer motive power at Philadelphia. One year later he went to Chicago as master mechanic, becoming assistant superintendent freight transportation at Pittsburgh in 1940. He was appointed superintendent of the Monongahela division at Pittsburgh later that year, being transferred to the Erie and Ashtabula division at New Castle, Pa., in 1941; to the St. Louis division at Terre Haute, Ind., in 1943, and to the Eastern division at Pittsburgh in 1946.

Earl Sullivan, general superintendent of the Missouri Pacific at Kansas City, Mo., has been appointed assistant general manager, with headquarters at St. Louis, Mo., succeeding **W. F. Kirk,** whose retirement was reported in the *Railway Age* of February 1. Succeeding Mr. Sullivan

News Department continued on next left-hand page

To make any Existing Locomotive

A better dollar-earner



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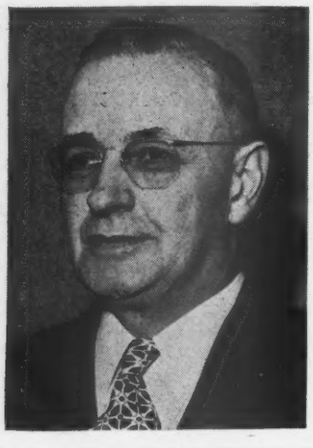
SECURITY CIRCULATOR DIVISION

is **Harold E. Roll,** chief personnel officer in charge of labor and personnel at St. Louis. **R. B. Butler,** trainmaster at Coffeyville, Kan., has been transferred to Van Buren, Ark., succeeding **W. H. Bailey,** whose promotion to superintendent of safety at St. Louis is reported elsewhere in these columns. Mr. Butler is succeeded by **F. Rothrock. H. B. Davis,** trainmaster at El Dorado, Ark., has been transferred to Bush, Ill. He is succeeded by **J. G. Sheppard.**

William G. Dorwart, whose promotion to superintendent of the Pennsylvania at Indianapolis, Ind., was reported in the *Railway Age* of January 25, was born on July 31, 1907, at Phillipston, Pa., and was graduated from Purdue University in 1932 with a B. S. degree in civil engineering. He entered railway service with the Pennsylvania in 1933 as an assistant in the engineering corps. The following year he was appointed assistant supervisor on the Buffalo division, and later, the Eastern division, at Alliance, Ohio. He subsequently held positions as assistant supervisor, bridges and buildings; maintenance of way inspector; and master carpenter. In 1942 he was advanced to assistant division engineer at Pittsburgh, Pa.. and to division engineer of the Conemaugh division in 1943. Mr. Dorwart was serving as division engineer of the Pittsburgh division at the time of his recent promotion.

Arthur E. Stoddard, whose promotion to general manager of the Eastern district of the Union Pacific, with headquarters at Omaha, Neb., was reported in the *Railway Age* of February 1, was born at Auburn, Neb., and entered railway service in 1915 with the St. Louis-San Francisco in the shops at Springfield, Mo. He joined the U. P. the next year as a student helper at Gothenburg, Neb., and subsequently advanced through positions as telegrapher,



Arthur E. Stoddard

train dispatcher, trainmaster, assistant superintendent and superintendent of the road's Utah and Wyoming divisions. Mr. Stoddard was a radio operator in the Navy during World War I, and as a colonel in World War II held several important transportation posts in Iran, England and France. Upon his release from active military duty on February 1, 1946, he was appointed superintendent of the U. P.'s Kansas division, which position he held until his promotion to assistant general manager on April 1 of that year. He was serving in the latter capacity at the time of his new appointment.

John F. Alsip, whose promotion to general manager of the Western district of the Northern Pacific, with headquarters at Seattle, Wash., was reported in the *Railway Age* of January 4, was born on February 26, 1884, at Decatur, Ill. Mr. Alsip entered railway service in 1899 with the Missouri Pacific at Hoisington, Kan., remaining with that road until 1905, when he joined the Kansas City Southern as a train dispatcher. In 1909 he was employed by the N. P. as dispatcher on the Tacoma (Wash.) division, and subsequently advanced through positions as assistant chief

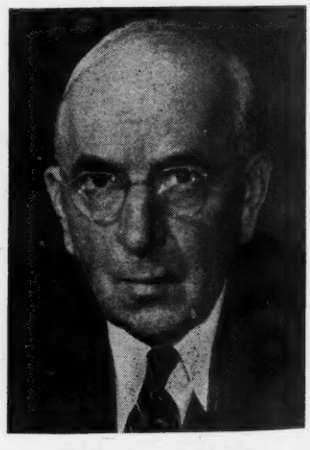
John F. Alsip

dispatcher, night chief dispatcher, chief dispatcher, trainmaster and assistant to general superintendent. He became assistant superintendent of the road's Fargo (N. D.) division in 1926, a position he held later also on the Tacoma and Idaho divisions. From February 1, 1936, to March 15, 1937, he served as inspector of train dispatching and transportation for the system. Mr. Aslip was promoted to superintendent of the Tacoma division in 1939, and in 1942 was advanced to acting assistant general manager, lines west of Livingston, Mont. On June 16 of that year he was appointed assistant general manager, the position he held at the time of his current promotion.

E. Macon Tolleson, superintendent of the Cincinnati, New Orleans & Texas Pacific, (part of the Southern) with headquarters at Somerset, Ky., has been appointed superintendent of the Charlotte division of the Southern, with headquarters at Greenville, S. C., succeeding **W. H. Cheney,** who has retired after 45 years of service. **Karl C. Shults,** assistant superintendent at Sheffield, Ala., has been transferred to Greenville, succeeding **Harold C. Mauney,** who has been promoted to superintendent of the Alabama Great Southern (part of the Southern system) and the Woodstock & Blocton, at Birmingham, Ala., to suceed **William H. Oglesby,** who has been transferred to Somerset to succeed Mr. Tolleson. **Clyde D. Vance,** trainmaster at Sheffield, has been appointed assistant superintendent at Sheffield, to succeed Mr. Shults. **Leason L. Waters,** superintendent terminals at Meridian, Miss., has been appointed superintendent at Selma, Ala., to succeed **Robert J. Stone,** who is resigning from the service of the Southern to become superintendent of the Northern division of the St. Louis-San Francisco at Fort Scott, Kan. **T. Vance Parker,** trainmaster at Winston-Salem, N. C., has been appointed superintendent terminals at Meridian, to succeed Mr. Waters.

Mr. Cheny was born at Commerce, Ga., on August 18, 1886, and entered railroad service on June 1, 1903, as agent-operator on the Charlotte division of the Southern. He became superintendent of the Lawrenceville Branch railroad (Southern) in February, 1912, and in February, 1919, he was appointed agency inspector of the Charlotte division of the Southern. Mr. Cheney served as trainmaster of the Columbia, Charleston and Charlotte divisions, successively, from June, 1923, to July 1, 1927. On the latter date he was promoted to superintendent of the Spartanburg division. From October 1, 1934, to April 1, 1938, Mr. Cheney was superintendent of the Georgia Southern & Florida (Southern), then becoming superintendent of the Asheville division of the Southern. He was transferred to the Charlotte division at Greenville on May 1, 1940.

William F. Kirk, whose retirement as assistant general manager of the Missouri Pacific, at St. Louis, Mo., was reported in the *Railway Age* of February 1, was born on August 19, 1881, at Osage City, Kan. Mr. Kirk became widely known during World War II as western director of the Office of Defense Transportation, and as special western representative of the Interstate Commerce Commission. He had complete control over the routing of all railroad traffic west of the Mississippi river, and so-called Kirk orders were largely



William F. Kirk

responsible for an even flow of troops and materials moving to ports and camps. Beginning his railway career in 1901 as a telegrapher with the M. P., he advanced successively through positions as dispatcher, chief dispatcher, trainmaster and assistant superintendent. He was promoted to division superintendent in 1917 and to general superintendent in 1924. During 1934 and 1935 Mr. Kirk was assistant western re-

News Department continued on next left-hand page

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gional director and eastern regional director with the federal coordinator of transportation. He returned to the M. P. in 1935, at which time he became assistant general manager. The following year he was appointed general superintendent of transportation, but he again became assistant general manager in 1941. He held that position at the time he was furloughed for war work, then returned to the M. P. as assistant general manager in 1945. Mr. Kirk has accepted a position which will take him to Turkey as consultant and advisor in the reorganization of that country's railway system.

ENGINEERING & SIGNALING

E. L. Zahm has been appointed water engineer of the Missouri-Kansas-Texas, with headquarters at Parsons, Kan., where he succeeds **J. H. Davidson,** who has retired.

F. H. Simpson, assistant chief engineer, New York Central, Lines West, with headquarters at Chicago, has been promoted to engineer maintenance of way, Lines West, in charge of roadway and structures, a newly created position, with the same headquarters, and the position of assistant chief engineer has been abolished.

H. E. Skinner, bridge inspector of the Elgin, Joliet & Eastern at Joliet, Ill., has been appointed supervisor of scales and work equipment, with headquarters at East Joliet, Ill: The positions of bridge inspector and supervisor of work equipment have been abolished.

Donald H. Steiner, the announcement of whose appointment as superintendent of signals and communications of the Chicago, Indianapolis & Louisville, with headquarters at Lafayette, Ind., appeared in the *Railway Age* of February 1, was born at Kaukauna, Wis., on September 22, 1911,

Donald H. Steiner

and received his higher education at the University of Illinois. He entered railroad service on May 1, 1939, as a signal helper on the Chicago, Milwaukee, St. Paul & Pacific. Subsequently he was promoted successively through the positions of assistant signalman, signalman, signal draftsman, and, finally, signal inspector, in which capacity he was serving at the time of his recent appointment.

A. H. Simon, assistant structural engineer of the Chicago, Burlington & Quincy, has been appointed engineer of buildings, with headquarters as before at Chicago, succeeding **H. G. Dalton,** whose death on January 14, at Wilmette, Ill., was reported in the *Railway Age* of January 25.

F. H. Masters, chief engineer of the Elgin, Joliet & Eastern, at Joliet, Ill., has been appointed special engineer, with the same headquarters. **F. G. Campbell,** assistant chief engineer, at Joliet, has been appointed chief engineer, with the same headquarters, succeeding Mr. Masters. **S. H. Shepley,** division engineer, at Gary, Ind., has been appointed assistant chief engineer, with headquarters at Joliet, succeeding Mr. Campbell.

A. T. Powell, whose promotion to assistant chief engineer of the Grand Trunk Western, with headquarters at Detroit, Mich., was reported in the *Railway Age* of January 11, was born at Athens, Ohio, on August 19, 1893, and received his higher education at the University of Kansas. After two and a half years of service with

A. T. Powell

the Elgin, Joliet & Eastern as chainman, rodman, and instrumentman, he entered the service of the Grand Trunk Western on September 1, 1916, as a draftsman. He was appointed assistant engineer on January 1, 1920, and engineer accountant on May 21, 1921. On May 1, 1944, he was advanced to office engineer, at Detroit, the position he held at the time of his recent promotion.

MECHANICAL

The master mechanic's office of the Arizona division of the Atchison, Topeka & Santa Fe, which has been located at Needles, Cal., since 1902, has been transferred to Barstow, Cal., effective February 1.

E. J. Lemieux, master mechanic of the Canadian Pacific, with headquarters at Edmonton, Alta., has retired after 43 years of railroad service.

TRAFFIC

Robert C. Donovan has been appointed assistant general freight agent of the Boston & Maine, with headquarters at Boston, Mass.

Edwin Linthicum, western freight agent of the Pennsylvania at Los Angeles, Cal., has retired, after more than 56 years of service with the road.

L. M. Fergus has been appointed assistant general livestock agent of the Missouri Pacific, with headquarters at San Antonio, Tex.

John R. Mills, freight traffic manager of the Kansas City Southern, with headquarters at Kansas City, Mo., has retired after more than 59 years of railroad service.

R. B. Gray, division passenger agent of the Baltimore & Ohio at Toledo, Ohio, has been transferred to Louisville, Ky., where he succeeds **F. J. Parmalee,** who has retired after 45 years of service. Mr. Gray is succeeded by **R. M. Conlin.**

H. K. McNamara, acting assistant general freight agent of the Atchison, Topeka & Santa Fe, at Los Angeles, Cal., has been appointed division freight agent, with headquarters at Long Beach, Cal., succeeding **George S. Scott,** who resigned on February 1.

A. G. Lees, general agent of the Grand Trunk Western at Birmingham, Ala., has been transferred to Detroit, Mich., succeeding **H. W. Hanes,** whose transfer to Chicago was reported in the *Railway Age* of November 16, 1946. Mr. Lees is succeeded at Birmingham by **L. B. Freeman.**

Frank P. Wagner, general agent of the Chicago Great Western at Los Angeles, Cal., has been appointed eastern traffic manager at New York. He is succeeded by **Louis J. Smith, Jr. J. J. McLaughlin** has been appointed acting general agent at Minneapolis, Minn.

John M. O'Connor has been appointed traveling coal agent of the Virginian, with headquarters at Norfolk, Va., succeeding **Harry D. Etheridge,** who has been appointed general agent at Beckley, W. Va. Mr. Etheridge replaces **A. E. Suter,** who has been appointed coal freight agent at New York, to succeed **N. F. Cuthriell,** who has been transferred to the general office at Norwolk.

R. C. Trovillion, general traffic manager of the Missouri-Kansas-Texas, at St. Louis, Mo., has been promoted to assistant vice-president—traffic, with headquarters at St. Louis and Dallas, Tex. The position of general traffic manager has been abolished. **C. P. Bowsher,** assistant freight traffic manager, has been advanced to freight traffic manager, with headquarters as before at St. Louis. **H. W. Landman,** assistant general freight and passenger agent, at Fort Worth, Tex., has been appointed general freight and passenger agent there, a newly created position. Mr. Landman's former position has been abolished. **William A. Little** has been appointed industrial agent of the road, with headquarters at St. Louis.

John H. Hague, freight traffic manager in charge of sales and service of the Baltimore & Ohio at Baltimore, Md., has been transferred to Cincinnati, Ohio, succeeding **Frank T. Sturtevant,** who has

News Department continued on second left-hand page

Thirty General Motors Diesel freight locomotives operating on the Great Northern covered a total of 7,683,886 miles from May 1941, when the first locomotive was placed in service, through October 31, 1946. During this time, they attained an average of 9,545 miles' operation per locomotive per month with an average availability of 93.9%.

Following is a breakdown of performance for each locomotive:

Locomotive Number	Horsepower	Month Delivered	Miles Operated	Hours Assigned	Hours Worked	% Availability
250	2700	5-41	872,279	31,826	30,017	94.3
251	2700	6-41	702,660	30,237	28,833	95.4
252	2700	10-45	122,225	5,932	5,810	97.9
253	2700	10-41	735,728	30,221	28,636	94.8
254	2700	"A"—10-41				
		"B"—10-45	110,092	4,370	4,289	98.1
255	2700	"A"—10-41				
		"B"—10-45	109,170	4,435	4,366	98.4
256	2700	10-45	112,523	4,524	4,512	99.7
257	2700	11-45	104,181	4,846	4,837	99.8
258	2700	11-45	102,844	4,719	4,704	99.7
300	4050	"A"—10-45				
		"B"—10-41	306,387	43,729	42,116	96.3
		"C"—10-45				
301	4050	3-45	173,971	8,456	8,186	96.8
302	4050	3-45	175,189	8,361	8,221	98.3
303	4050	3-45	171,143	8,264	8,094	97.9
304	4050	3-45	170,090	8,137	8,009	98.4
305	4050	4-45	171,160	8,197	8,055	98.3
400	5400	12-43	257,538	19,376	17,998	92.9
402	5400	1-44	242,472	18,256	16,919	92.7
404	5400	1-44	290,051	15,759	14,565	92.4
406	5400	3-44	276,409	15,377	14,024	91.2
408	5400	3-44	273,967	15,037	13,899	92.4
410	5400	5-44	251,981	13,685	12,556	91.8
412	5400	6-44	244,499	13,642	12,379	90.7
414	5400	6-44	247,458	13,494	11,371	84.3
416	5400	6-44	245,017	13,380	12,168	90.9
418	5400	8-44	229,814	12,228	11,235	91.9
420	5400	9-44	216,287	11,309	10,502	92.9
422	5400	10-44	216,620	11,387	10,649	93.5
424	5400	10-44	214,261	11,299	10,501	92.9
426	5400	3-45	164,579	9,007	7,745	86.0
428	5400	3-45	173,291	8,824	8,147	92.3
		Total	7,683,886	408,314	383,343	93.9

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS LA GRANGE, ILL.

retired as freight traffic manager, Southwestern region, after 36 years of service with that road. **Elmer A. Schofield,** general freight agent at Cincinnati, has been promoted to assistant freight traffic manager. **Lloyd W. Baker,** general freight agent at Baltimore, succeeds Mr. Hague as freight traffic manager in charge of sales and service for the entire system. **Ross B. Hager,** chief clerk to the vice-president of traffic, has been appointed assistant to vice-president in charge of traffic, succeeding **Albert S. Baker,** who has been appointed manager of merchandise traffic at Baltimore.

C. B. Kincaid, assistant general passenger agent of the Chesapeake & Ohio, with headquarters at Washington, D. C., has been promoted to the new position of general passenger agent in charge of sales, with headquarters at Richmond, Va. The new position has been created in connection with the road's program to expand and modernize passenger service. **James B. Edmunds,** who has been associated with the passenger and freight departments for a number of years, succeeds Mr. Kincaid as assistant general passenger agent at Washington. **C. H. Slayman,** industrial commissioner of the Pere Marquette at Detroit, Mich., has been appointed general industrial commissioner of that road and the Chesapeake & Ohio, with headquarters at Cleveland, Ohio.

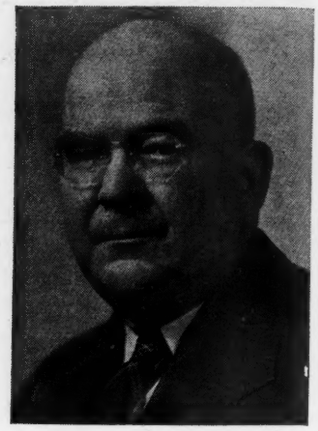
The following promotions were announced recently by the traffic department of the Texas & Pacific: **R. R. Hollinger,** assistant general freight agent at New Orleans, La., to foreign freight traffic manager there; **E. L. Billingsley,** general freight agent, with headquarters at Dallas, Tex., to assistant freight traffic manager; **F. J. Loughlin,** assistant general freight agent, to general freight agent, with headquarters as before at New Orleans; **C. H. Pistor,** assistant general freight agent at Dallas, to general freight agent there; **P. A. Brown,** chief clerk, traffic division, to assistant general freight agent, with headquarters as before at Dallas; **B. L. Dieterman,** manager of T. & P. terminal warehouse at Dallas, to general agent at Phoenix, Ariz., succeeding **E. H. Eisenhardt,** who has been transferred to New York.

E. C. Patton has been appointed general freight agent of the Louisville & Nashville at Birmingham, Ala., with jurisdiction over lines south of Decatur, Ala., succeeding **R. S. Willock,** who has retired following 56 years of service with the road. **George W. Ryan, Jr.,** traveling freight agent at Memphis, Tenn., has been appointed general eastern freight agent at New York, succeeding **F. Carey Street,** who has been appointed division freight agent at Cincinnati, Ohio. **C. A. Wagner** has been appointed general agent at Montgomery, Ala., and **G. C. Lloyd** has been appointed division freight agent at Birmingham. **R. S. McAfee,** city freight agent at St. Louis, Mo., has been advanced to general agent at Kansas City, Mo., where he relieves **B. W. Strain,** who has retired after 57 years of service with the road.

John Brooke Mordecai, whose retirement as traffic manager of the Richmond, Fredericksburg & Potomac at Richmond, Va., was reported in the *Railway Age* of January 18, was born in Henrico county, Va., on November 8, 1878. Mr. Mordecai entered railroad service on November 1, 1895, as telephone and office boy in the general offices of the Richmond, Fredericksburg & Potomac at Richmond, becoming assistant ticket agent of that road and the Richmond & Petersburg (now Atlantic Coast Line) on September 1, 1897. From June 1, 1898, to March, 1900, he served as clerk on freight claim, passenger and freight rate desks in the traffic department of the R. F. & P., and he was appointed chief clerk in that department on the latter date. In addition, he held a similar position on the Washington Southern (now R. F. & P.) from November 1, 1901, to April 18, 1918. Mr. Mordecai was appointed traffic manager on April 18, 1918, the position he held until his retirement. During World War I he served also as representative of all Virginia railroads assisting the adjutant general of Virginia in the transportation of men of the 80th division from all points in the state to Camp Lee, Va. Mr. Mordecai was chairman of the executive committee of the American Association of Passenger Traffic Officers from 1922 to 1924 and chairman of the Freight Claim Division of the Association of American Railroads from 1937 to 1939. He is the author of "A Short History of the R. F. & P.", published in February, 1940.

John F. Hourigan, whose promotion to freight traffic manager of the Central of New Jersey at New York was reported in the *Railway Age* of January 11, was born at Woodport, Morris county, N. J., on August 7, 1897. From May, 1913, to November, 1917, Mr. Hourigan was employed as clerk in the time and cost department at Picatinny (N. J.) Arsenal. Entering railroad service on November 15, 1917, as clerk in the traffic department of the Wharton & Northern, he left to join the United States Marine Corps on August 1, 1918. He re-entered the service of the Wharton & Northern on November 25, 1922, as clerk in the traffic department, becoming freight representative on September 1, 1925, and general agent on April 1, 1932. On March 1, 1935, Mr. Hourigan was appointed assistant general freight agent of the Central of New Jersey, becoming assistant freight traffic manager at New York in February, 1946, the position he held at the time of his recent promotion to freight traffic manager.

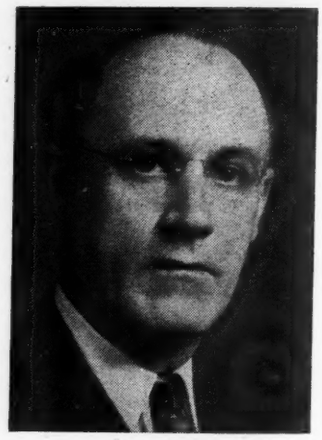
Frank A. Cleveland, whose promotion to western freight traffic manager of the Northern Pacific, with headquarters at Seattle, Wash., was reported in the *Railway Age* of January 25, entered railway service in 1902 with the Chicago & North Western at Ashland, Wis. Following a five-year association with the Clarkson Coal & Dock Co. there, he entered the employ of the N. P. in 1911, at Wallace, Idaho. In 1913 Mr. Cleveland became a tariff clerk in the traffic department at Tacoma, Wash., where he served in various capacities until 1921, when he was advanced to assistant general freight agent at Seattle. He was promoted to general freight agent there



Frank A. Cleveland

in 1928, in which capacity he was serving at the time of his new appointment.

J. P. Derham, Jr., assistant freight traffic manager of the Seaboard Air Line, has been promoted to freight traffic manager, in charge of solicitation and service, with headquarters as before at Norfolk, Va., succeeding **F. H. Bryant,** who, at his own request and because of the condition of his health, has been relieved of the duties of that position and has been appointed gen-



J. P. Derham, Jr.

eral agent, traffic department, Fort Myers, Fla. **Eli W. Long,** assistant freight traffic manager, has been promoted to freight traffic manager in charge of solicitation in the North and West, with headquarters as before at Norfolk.

Mr. Derham was born at Green Sea, S. C., and was graduated from Clemson College. He saw service in the Army during World War I, emerging as a first lieutenant in the infantry. Mr. Derham entered the service of the Seaboard Air Line in 1920 as development agent in the agricultural department at Jacksonville, Fla. Transferring to the traffic department in 1922, he advanced through increasingly important positions and was assistant freight traffic manager at Jacksonville at the time of his transfer to Norfolk in 1940.

Mr. Bryant was born at Olive Hill, Ky., on May 31, 1894, and entered the service

News Department continued on next left-hand page

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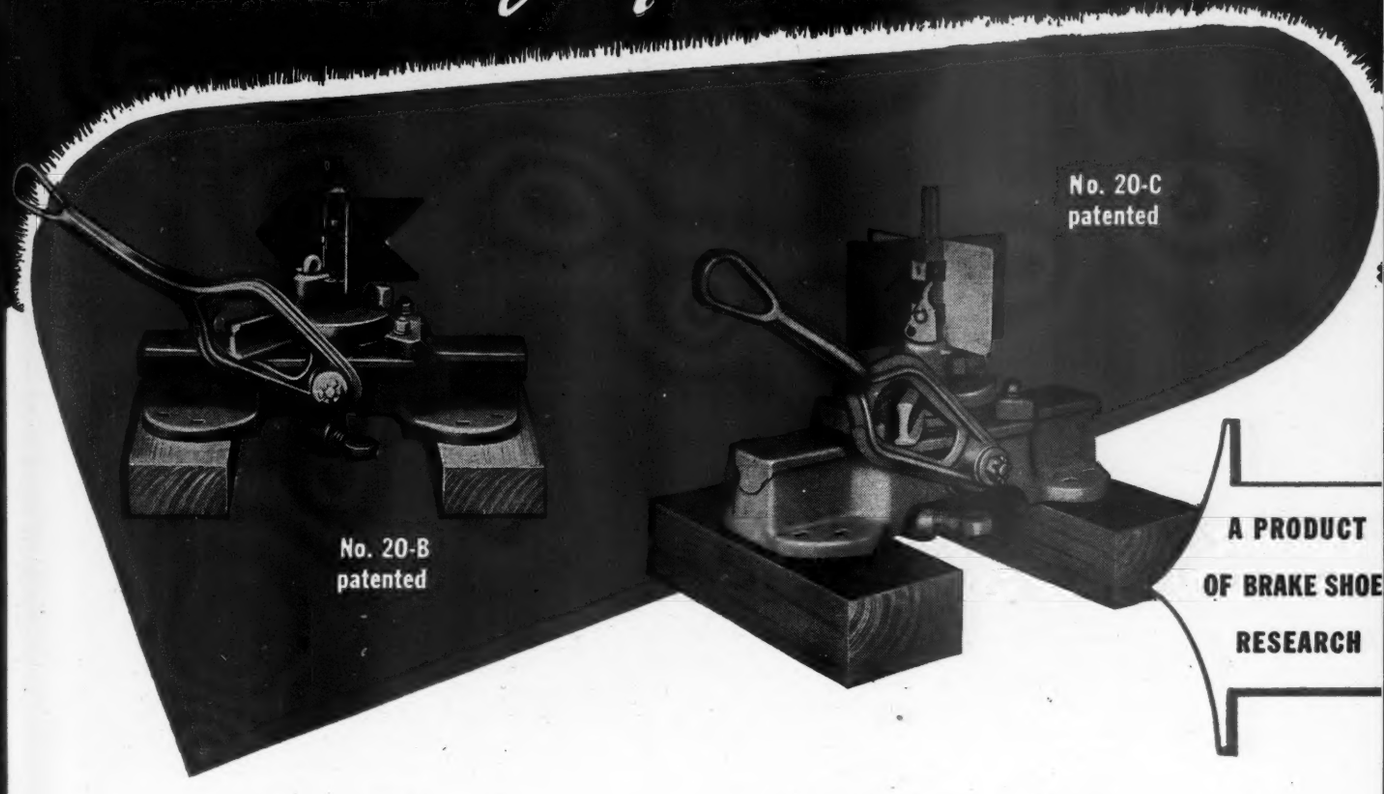

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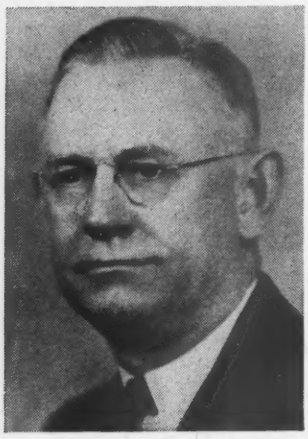
[illegible] CANADIAN RAMAPO IRON WORKS, LTD., NIAGARA FALLS, ONT.

of the Seaboard Air Line on August 1, 1911, as a clerk at Piedmont, Ala. He subsequently served with the Georgia & Florida, returning to the Seaboard on July 1, 1912, remaining with that road since



Eli W. Long

that time. He served in various capacities along the lines of the Seaboard until June 16, 1929, when he was appointed assistant freight traffic manager at Jacksonville, Fla., being transferred to Norfolk on August 1, 1936. Mr. Bryant was appointed freight traffic manager at Norfolk in June, 1940.

Mr. Long was born at Marshall, N. C., and has had a railroad career extending over a period of 46 years. He entered the service of the Seaboard Air Line in 1912 as traveling freight agent at Charlotte, N. C. Successive promotions brought him to Norfolk in 1929 as assistant freight traffic manager, the position he occupied at the time of his recent promotion.

Edward R. Lewis, whose promotion to general freight agent of the Fort Dodge, Des Moines & Southern, with headquarters at Chicago, was reported in the *Railway Age* of January 25, was born on April 19, 1903, at Michigan City, Ind. He received his higher education at the La Salle Exten-

Edward R. Lewis

sion University and the Transportation Law Institute, and in 1924 entered the employ of the Pullman Car & Manufacturing Corp. (now Pullman-Standard Car Manufacturing Company) as traffic clerk in the audit department at Michigan City. Mr. Lewis began railway service in 1927 with the Chicago South Shore & South Bend as freight accounting clerk, advancing through positions as freight rate clerk, overcharge claim clerk, freight statistician and rate and division clerk. He also served as chief clerk to auditor of freight revenue and as chief rate and division clerk with the same road. He joined the Fort Dodge line in 1944 as assistant general freight agent at Chicago, the position he held until his new appointment.

PURCHASES AND STORES

J. W. Sanders, treasurer of the Clinchfield, with headquarters at Erwin, Tenn., has been appointed purchasing agent, in addition to his present duties. He succeeds **W. A. Starritt,** who has retired after more than 43 years of service with the road.

John LeRoy Hartzell, whose appointment as superintendent of stores of the Western Maryland at Hagerstown, Md., was reported in the *Railway Age* of January 18, was born on January 15, 1891, at Moline, Ill. After graduation from high school, Mr. Hartzell entered railroad service with the Rock Island Lines in June, 1908, serving until June, 1915, as laborer, storehelper, stockman, order clerk and traveling storekeeper, successively, at Silvis, Ill. From June, 1915, to September, 1918, he was storekeeper for the Rock Island at Trenton, Mo. Mr. Hartzell then went with the Western Maryland and served as storekeeper at Cumberland, Md., until July, 1931, when he was promoted to general storekeeper at Hagerstown.

E. F. DeLisle, whose appointment as general storekeeper of the New York Cen-

E. F. DeLisle

tral at West Albany, N. Y., was reported in the *Railway Age* of January 4, was born on March 27, 1893, at Oswego, N. Y. After attending the elementary schools and Chaffee's Business Institute, Mr. DeLisle entered railroad service on May 25, 1913, with the New York Central as stenographer in the office of the supervisor of track at Richland, N. Y. On March 1, 1914, he was appointed clerk to district storekeeper at Oswego and on November 1, 1915, he became chief clerk. He was appointed assistant district storekeeper at Oswego on October 16, 1920, being promoted to district storekeeper on November 1, 1929. After the closing of the Oswego shops Mr. DeLisle was appointed assistant district storekeeper at the Depew shops on September 1, 1930, being transferred to the East Buffalo shops on June 16, 1931. On January 1, 1937, he was appointed district storekeeper. Early in 1941 Mr. DeLisle was commissioned major, First Railway Grand Division, in charge of railway stores, spending nearly three years overseas in North Africa and Europe. During this period he was promoted to lieutenant colonel and transferred to headquarters of the Military Railway Service, acting as assistant deputy of stores. He received the Legion of Merit medal from the U. S. Army and was decorated with the Italian Cross of Honor. He returned to the New York Central on January 1, 1946, as assistant general storekeeper at West Albany, the position he held until his recent appointment as general storekeeper.

SPECIAL

Dr. R. B. Kepner, medical director, relief department of the Chicago, Burlington & Quincy, with headquarters at Chicago, has been appointed chief medical officer there.

Paul O. Ellis, assistant superintendent of safety of the Missouri-Kansas-Texas at Dallas, Tex., has been advanced to superintendent of safety, with the same headquarters. He succeeds **C. A. Birge,** whose promotion to division superintendent at Denison, Tex., is reported elsewhere in these columns. The position of assistant superintendent of safety will be filled by **G. L. Stricklin.**

John P. Brindley, whose promotion to superintendent of safety of the Chicago, Rock Island & Pacific, at Chicago, was reported in the *Railway Age* of January 25, was born on July 27, 1893, at Atkins, Ark. He entered railway service in 1915 as a carman helper with the Rock Island at Little Rock, Ark., and in December of that year became brakeman there. He served as switchman from April 4, 1918, to February 16, 1946, at which time he was advanced to assistant superintendent of safety at Chicago. Mr. Brindley held that position at the time of his new appointment.

Theodore Short, assistant chief personnel officer of the Missouri Pacific, with headquarters at St. Louis, Mo., has been promoted to chief personnel officer, succeeding **Harold E. Roll,** whose promotion to general superintendent at Kansas City, Mo., is reported elsewhere in these columns. **B. W. Smith,** superintendent of safety at St. Louis, succeeds Mr. Short. **W. H. Bailey,** trainmaster at Van Buren, Ark., has been appointed superintendent of safety, succeeding Mr. Smith.

OBITUARY

J. B. Taylor, auditor of disbursements of the New York Central at Detroit, Mich., died on January 6.

Egbert I. Rogers, who retired in 1945 as president of the Peoria & Pekin Union, with headquarters at Peoria, Ill., died in that city on February 3.

Current Publications

Articles in Periodicals

Soviet Railways—From the Present Until 1950, by Seymour T. R. Abt. Foreign Commerce Weekly, December 28, 1946, pp. 3-5 and 33. Available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Single copies, 15 cents.

This article outlines the plans embodied in the Fourth Five-Year Plan for improving the Soviet railway system. Five major categories are included in the Plan, i. e., new construction, reconstruction, modernization, railway equipment production, and accelerated freight handling, and each of these is discussed briefly. A map of the railways of the Soviet Union is also included.

Man in the Middle, by Leslie Roberts. Maclean's Magazine, January 1, 1947, pp. 13 and 46-47. Published at 481 University ave., Toronto 2, Canada. Single copies, in Canada, 10 cents.

This article describes the accomplishments of Walter S. Thompson, director of public relations of the Canadian National—long one of the most successful practitioners of his profession in North America, in or out of the railroad industry. The article explains why he has done so well at his job, i. e., because he knows everybody; because he is more interested in his work than in getting credit for it; and because he makes no mystery out of public relations and has always made it his business, first, to give people all the facts *they* want to know about his company, before telling them what *he* wants them to know about it.

Books

The Federal Labor Laws; a Manual for Supervisors. Published by the National Foremen's Institute, Inc., Deep River, Conn. Price $2.50.

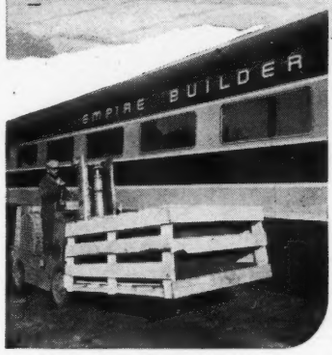
Designed to aid supervisors in answering questions concerning Federal labor laws. One section is devoted to railway legislative acts and includes explanations of the Railway Labor Act, the Railroad Retirement Act and the Railroad Unemployment Insurance Ace.

Boll Weevil, Recollections of the Trinity & Brazos Valley Railway, by J. L. Allhands. 326 pages, illustrations. Published by the Anson Jones Press, Houston, Tex. Price, $3.50.

Here is a book which, while it is chiefly an informal history of the Trinity & Brazos Valley (now Burlington-Rock Island), is also a series of recollections of a general contractor concerning his experiences in the building of railroads and in the settlement of many of the now important cities and oil fields of Texas. The author has an uncanny memory for persons and places and a flair for excellent anecdotes concerning both the railroads and allied businesses. The book also goes into considerable detail regarding the early days of other Texas railroads, including the Gulf, Colorado & Santa Fe and the Burlington.

20 BAKER TRUCKS mean 80% savings in handling costs at PULLMAN-STANDARD

Typical yard scene showing 3 Baker Platform Trucks handling miscellaneous materials to cars. Truck at right doubles as tractor hauling trailer load of car partitions.



Baker Fork Truck carrying crated air conditioning unit, passing in front of nearly completed car for Great Northern's famous "Empire Builder" train.

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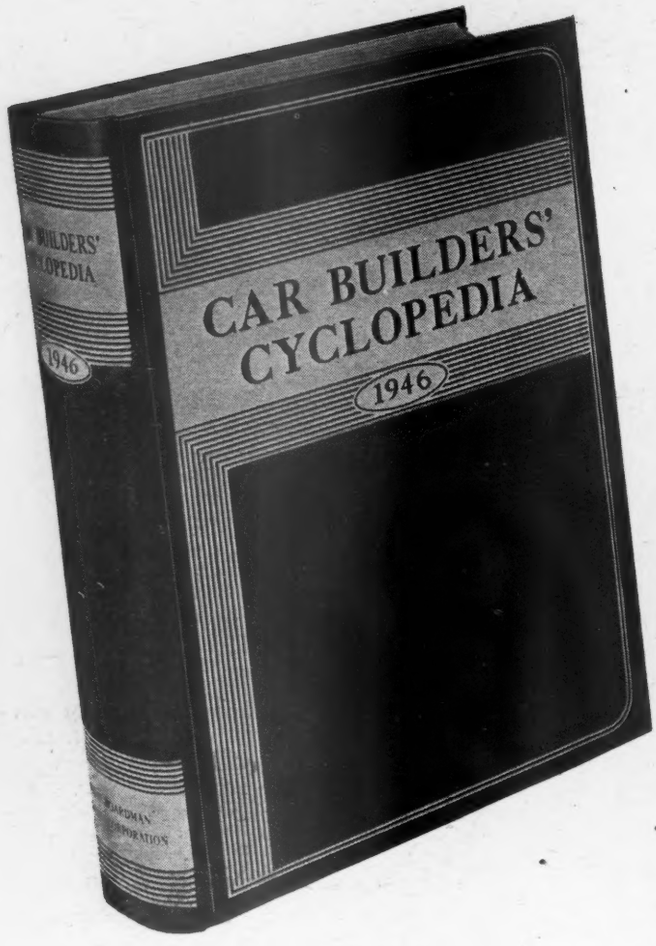

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